



# U.S. Army Medical Research Institute of Chemical Defense

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## Development of a Novel Oligonucleotide Array for Genomic Screening of Chemical Warfare Agent Exposure in Guinea Pigs and Swine

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## **ABSTRACT**

Oligonucleotide microarrays have become a valuable tool in understanding the mechanism of toxicity of chemical warfare agents. However, several model organisms used in the study of chemical warfare agent toxicity are not widely used as genetic models in molecular and cellular biology. These include guinea pigs and swine, which are used in the study of chemical warfare nerve agents and vesicants, respectively. To address this gap in research tools, we have developed an oligonucleotide microarray that contains representative genes from guinea pig (*Cavia porcellus*) and swine (*Sus scrofa*). This oligonucleotide array (genechip) has been designed, produced and tested and is now available as a research tool for investigators seeking to understand the molecular responses to chemical warfare agents to facilitate the development of medical countermeasures against these agents.

## INTRODUCTION

Recent advances in cDNA and oligonucleotide microarray technology have spawned a new subdiscipline in toxicology—toxicogenomics. Toxicogenomics is focused on identifying changes in gene expression in response to a toxic chemical and then using that information to understand mechanisms of toxicity (Orphanides, 2003). Recently, these approaches have been utilized to understand the mechanisms of toxicity of chemical warfare agents (Blanton et al., submitted; Dillman et al., manuscript in preparation). The vast majority of DNA microarrays have been developed for use with well-characterized model systems, particularly rat and mouse in addition to other eukaryotic species such as *Drosophila*, *C. elegans*, zebrafish, and yeast.

Several non-traditional model organisms are employed in chemical warfare agent research. The two most notable models are the guinea pig (*Cavia porcellus*) and swine (*Sus scrofa*). *C. porcellus* is a model organism for studies of nerve agent exposure because its susceptibility to nerve agent toxicity more closely resembles the sensitivity of primates, and presumably of humans, than does that of rodent (Maxwell et al., 1987). *S. scrofa* is used as a model organism for vesicant studies (Graham et al., 2002; Sabourin et al., 2002) because its skin resembles human skin in physiology. One of the major drawbacks to using these two organisms as models has been the lack of tools available to study changes in gene expression in these animals after agent exposure. This is in contrast to mouse and rat, which have completely or nearly completely sequenced genomes, but are not good animal models for the study of nerve agent exposure due to their increased resistance to the G-class of nerve agents compared with primates (Maxwell et al., 1987), or of exposure to vesicants due to differences in inflammatory responses and problems associated with hair follicles (Papirmeister, 1991).

To address this gap in technology, we have developed a novel research tool that will enhance the capabilities of researchers utilizing *C. porcellus* and *S. scrofa* as model organisms to understand the mechanisms of toxicity of chemical warfare agents. In collaboration with Affymetrix, we developed an oligonucleotide microarray (genechip) that contains representative genes of both *C. porcellus* and *S. scrofa*. The development of this genechip will allow researchers to harness the power of genomic technologies for the purpose of understanding the toxicity of chemical warfare agents in guinea pigs and swine.

## MATERIALS AND METHODS

### Gene Database Searches

Genes were extracted from the National Center for Biotechnology Information (NCBI) nucleotide database (<http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=Nucleotide>). We queried the NCBI database for guinea pig genes using the keyword "*Cavia porcellus*" and for swine genes, using the keyword "*Sus scrofa*." The returned lists were downloaded and inspected for incorrect species results. These were removed from the lists. *Cavia cobaya* genes were allowed to remain as part of the final list submitted for oligonucleotide array design since *cobaya* is an alternative species name.

## **Oligonucleotide Array Design**

Detailed descriptions of the methods used in the design and production of the guinea pig and swine oligonucleotide array can be found on the Affymetrix website at [https://www.affymetrix.com/support/technical/other/custom\\_design\\_manual.pdf](https://www.affymetrix.com/support/technical/other/custom_design_manual.pdf)

## **Isolation of Guinea Pig Liver RNA and Testing of Oligonucleotide Arrays**

Frozen guinea pig liver was homogenized in Tri Reagent (Sigma-Aldrich, St. Louis, MO) and the RNA extracted according to the manufacturer's protocol (<http://www.sigmaaldrich.com/sigma/bulletin/t9424bul.pdf>). RNA was further purified using RNeasy columns (Qiagen, Valencia, CA). The quality and amount of RNA was monitored throughout processing with Agilent Bioanalyzer (Agilent, Palo Alto, CA). Purified RNA was used to prepare biotinylated target RNA, with minor modifications from the manufacturer's recommendations ([http://www.affymetrix.com/support/technical/manual/expression\\_manual.affx](http://www.affymetrix.com/support/technical/manual/expression_manual.affx)). Briefly, 10 µg of mRNA was used to generate first-strand cDNA by using a T7-linked oligo(dT) primer. After second-strand synthesis, *in vitro* transcription was performed with biotinylated UTP and CTP (Enzo *In Vitro* Transcription Kits from Affymetrix, Santa Clara, CA), resulting in approximately 100-fold amplification of cRNA. The target cRNA generated from each sample was processed as per manufacturer's recommendation using an Affymetrix GeneChip Instrument System ([http://www.affymetrix.com/support/technical/manual/expression\\_manual.affx](http://www.affymetrix.com/support/technical/manual/expression_manual.affx)). Briefly, spike controls were added to 15 µg fragmented cRNA before overnight hybridization using 10 µg. Arrays were then stained with streptavidin-phycoerythrin and washed before being scanned on an Agilent GeneArray Scanner. After scanning, array images were assessed by eye to confirm scanner alignment and the absence of significant bubbles or scratches on the chip surface. Details of quality control measures are reported in the Results.

## **Data Analysis**

Scanned output files from each array were inspected for quality control measures and then processed using Affymetrix Microarray Suite (v 5.0), Affymetrix MicroDB (v3.0), and Affymetrix Data Mining Tool (v3.0) as described (<http://www.affymetrix.com/index.affx>). Arrays were scaled to an average intensity of 150 (TGT=150). The raw data were imported as a comma separated values (.csv) file into Partek Pro 5.0 (Partek, St. Louis, MO). The raw data were normalized by the addition of a constant (c=1) followed by log transformation (log base 2).

## RESULTS

We mined the NCBI Genbank and found several hundred sequenced genes that are specific for *C. porcellus* or *S. scrofa*. We extracted these genes and compiled them into a guinea pig gene database and a swine gene database for our use (Tables 1 and 2). These gene databases were analyzed, and we determined that these databases were of broad scope, representing a wide variety of genes of various classes and functions, and would be useful in toxicological screening. This preliminary information provided the basis for design of a combination guinea pig/swine oligonucleotide microarray. Based on the number of genes we wished to put on an array, an 18-micron feature size was chosen, with a synthesis area of 3.7 mm, for production of the oligonucleotide microarray (genechip). We analyzed each guinea pig and swine gene sequence, determined the quality of the sequence, and designed probe sets for the custom genechip (see Materials and Methods for details). Appropriate control sequences were chosen for each species and included in the genechip design (Tables 3 and 4). The final chip design incorporated 267 guinea pig probe sets (217 unique; 45 identical [s]; 5 mixed [x]) and 859 swine probe sets (661 unique; 170 identical [s]; 28 mixed [x]). Each probe set consists of 13 probe pairs per sequence (a small number consist of 8 probe pairs). More detailed information on the parameters of each probe set is available as part of the genechip library database at the USAMRICD Affymetrix Core Facility. We utilized the expertise of the Custom Development Team at Affymetrix in the design of the array. After completion of the initial array design, we utilized Affymetrix's expertise and production facilities to manufacture the guinea pig/swine genechip to our specifications. An initial lot of 90 chips was produced. This chip design is now on file at Affymetrix, and additional chips can be ordered on an as-needed basis.

The first chip was tested using guinea pig liver RNA. The chip performed to specifications, with quality control measures within acceptable parameters (Table 5). The scanned image of the array revealed a satisfactory scan with all control features (chip name, checkerboard border, checkerboard corners) performing as expected (Figure 1).

## DISCUSSION

Oligonucleotide microarrays (genechips) have allowed researchers to monitor the expression level of hundreds or thousands of genes simultaneously. This information allows one to gain a molecular snapshot of responses to chemical exposure and provides important information about the mechanism of toxicity of a chemical of interest. Recently, these approaches have been applied to understand the mechanisms of toxicity of chemical warfare agents. Scientists investigating vesicants and nerve agents frequently utilize non-traditional animal models. This often places constraints on the application of genechip technology to these problems, since guinea pig or swine genechips are not commercially available. We have attempted to fill in this technological gap by designing and producing a genechip specific for guinea pig and swine. We extracted gene sequences for guinea pig and swine from public gene databases and used this information to design a genechip microarray in consultation with the Custom Design Team at Affymetrix. The majority of our efforts involved determining what gene sequences were appropriate for inclusion on the genechip based on criteria developed by Affymetrix for what sequences would yield informative data. During the process of selecting genes to include in the chip design, we found redundancy of a number of sequences deposited in GenBank. This led us

to believe initially that we had more unique sequences to include in the chip design than were ultimately included in the final design. In future chip designs, this point should be taken into consideration when estimating the number of genes that may be used in a proposed chip design.

The genechip has been tested with guinea pig samples and performs as expected. This now opens a new avenue of investigation with these animal models. It should be noted that the guinea pig/swine genechip is not comprehensive since only a few hundred genes have been sequenced for each organism. Neither guinea pig nor swine have been chosen as organisms for genome sequencing projects, although there is a consortium exploring the possibility of sequencing the swine genome. Nonetheless, these genechips should prove to be valuable tools in understanding the mechanisms of toxicity of chemical warfare agents in non-traditional animal models. These genechips will also aid in comparing data obtained using these animal models with data obtained in other species (e.g., mouse, non-human primate). Future studies are being planned to develop a genechip reference database that will allow comparison of molecular responses to chemical warfare agent exposure across all animal models utilized in chemical warfare agent research. This should provide valuable data that will enhance our ability to deduce the effects of chemical warfare agents in humans and will advance our ability to determine the efficacy, in humans, of potential countermeasures that have been tested in other species.



## REFERENCES

- Blanton, J.L., D'Ambrozio, J.A., Sistrunk, J.E. and Midboe, E.G. Global changes in the expression patterns of RNA isolated from the hippocampus and cortex of VX exposed mice. (submitted).
- Dillman, J.F. III, Phillips, C.S., Dorsch, L.M., Croxton, M.D., Hege, A.I., Sylvester, A.J., Moran, T.S., and Sciuto, A.M. Gene expression profile induced in the rat lung by sulfur mustard exposure. (in preparation).
- Graham J.S., Schomacker K.T., Glatter R.D., Briscoe C.M., Braue E.H. Jr, Squibb K.S. 2002. Efficacy of laser debridement with autologous split-thickness skin grafting in promoting improved healing of deep cutaneous sulfur mustard burns. *Burns*. 28(8):719-730.
- Maxwell D.M., Brecht K.M., and O'Neill B.L. 1987. The effect of carboxylesterase inhibition on interspecies differences in soman toxicity. *Toxicology Letters*. 39:35-42.
- Orphanides G. 2003. Toxicogenomics: challenges and opportunities. *Toxicol Lett*. 11:145-148.
- Papirmeister B., Feister A.J., Robinson S.I. and Ford R.D. 1991. *Medical Defense Against Mustard Gas: Toxic Mechanisms and Pharmacological Implications*, CRC Press, Boca Raton, FL.
- Sabourin C.L., Danne M.M., Buxton K.L., Casillas R.P., Schlager J.J. 2002. Cytokine, chemokine, and matrix metalloproteinase response after sulfur mustard injury to weanling pig skin. *J Biochem Mol Toxicol*. 16:263-272.

Table 1. List of *C. porcellus* genes used in the design of oligonucleotide array.

ID	Description
AB000488.1	" <i>Cavia porcellus</i> mRNA for glutathione S-transferase subunit gYc, complete cds"
AB002662.1	" <i>Cavia porcellus</i> mRNA for rantes, complete cds"
AB005049.1	" <i>Cavia porcellus</i> mRNA for LTB4 receptor, complete cds"
AB006443.1	" <i>Cavia porcellus</i> mRNA for alpha-2-HS glycoprotein, complete cds"
AB006444.1	" <i>Cavia porcellus</i> mRNA for alpha-1-microglobulin/bikunin, complete cds"
AB010093.1	" <i>Cavia porcellus</i> mRNA for interleukin 2 precursor, complete cds"
AB010634.1	" <i>Cavia porcellus</i> mRNA for carboxylesterase, complete cds"
AB012097.1	" <i>Cavia porcellus</i> gene for brain-derived neurotrophic factor, complete cds"
AB013609.1	" <i>Cavia porcellus</i> mRNA for DEAD box protein, complete cds"
AB014340.1	" <i>Cavia porcellus</i> mRNA for Monocyte Chemoattractant Protein-3 (MCP-3), complete cds"
AB016287.1	" <i>Cavia porcellus</i> mRNA for L-type calcium channel alpha 1 subunit, complete cds"
AB016288.1	" <i>Cavia porcellus</i> mRNA for L-type calcium channel beta subunit, complete cds"
AB016426.1	" <i>Cavia porcellus</i> mRNA for glutathione s-transferase, complete cds"
AB021219.1	" <i>Cavia porcellus</i> mRNA for leukotriene b4 12-hydroxydehydrogenase/prostaglandin 15 keto reductase, complete cds"
AB025723.1	" <i>Cavia porcellus</i> mRNA for interleukin-12 p35 subunit (IL-12 p35), complete cds"
AB025724.1	" <i>Cavia porcellus</i> mRNA for interleukin-12 p40 subunit (IL-12 p40), complete cds"
AB027238.1	" <i>Cavia porcellus</i> gene for antithrombin III, complete cds"
AB031279.1	" <i>Cavia porcellus</i> GP-GPx4 mRNA for phospholipid hydroperoxide glutathione peroxidase, complete cds"
AB032693.1	" <i>Cavia porcellus</i> mRNA for histamine N-methyltransferase, complete cds"
AB033506.1	" <i>Cavia porcellus</i> Ahr mRNA for arylhydrocarbon receptor, complete cds"
AB034987.1	" <i>Cavia porcellus</i> mRNA for UDP-glucuronosyltransferase 2B21, complete cds"
AB034988.1	" <i>Cavia porcellus</i> mRNA for UDP-glucuronosyltransferase 2B22, complete cds"
AB038514.1	" <i>Cavia porcellus</i> mRNA for Na+ K+-ATPase beta-1 subunit, complete cds"
AB042256.1	" <i>Cavia porcellus</i> mRNA for caltrin-like protein I, complete cds"
AB042257.1	" <i>Cavia porcellus</i> mRNA for caltrin-like protein II, complete cds"
AB047271.1	" <i>Cavia porcellus</i> MAO-B mRNA for putative monoamine oxidase B, complete cds"
AB049465.1	" <i>Cavia porcellus</i> C4BPA mRNA for C4bp alpha-chain, complete cds"
AB049466.1	" <i>Cavia porcellus</i> C4BPA mRNA for C4bp alpha-chain, complete cds"
AB049467.1	" <i>Cavia porcellus</i> C4BPA mRNA for C4bp alpha-chain, complete cds"
AB049761.1	" <i>Cavia porcellus</i> mRNA for acyl-CoA synthetase 5, complete cds"
AB049762.1	" <i>Cavia porcellus</i> mRNA for interleukin-15 receptor alpha chain precursor, complete cds"
AB055403.1	" <i>Cavia porcellus</i> NQO1 mRNA for NAD(P)H: quinone oxidoreductase 1, complete cds"
AB058506.1	" <i>Cavia porcellus</i> I3 mRNA, complete cds"
AB058645.1	" <i>Cavia porcellus</i> mRNA for trappin, complete cds"

AB061720.1 "Cavia porcellus glb mRNA for diacyl/L-xylulose reductase, complete cds"  
 AB073371.1 "Cavia porcellus mRNA for ferritin heavy chain, complete cds"  
 AB084158.1 "Cavia porcellus mRNA for major histocompatibility complex class II, complete cds"  
 AB084171.1 "Cavia porcellus WDR1 mRNA for WD repeat1 protein, complete cds"  
 AB089439.1 "Cavia porcellus cx32 mRNA for connexin32, complete cds"  
 AB089440.1 "Cavia porcellus cx26 mRNA for connexin26, complete cds"  
 AF001982.1 "AF001982 Cavia porcellus clone TSM3 seminal vesicle polypeptide mRNA, complete"  
 AF002657.1 "Cavia porcellus clone TSM1 seminal vesicle polypeptide mRNA, complete cds"  
 AF002658.1 "AF002658 Cavia porcellus clone TSM2 seminal vesicle polypeptide mRNA, complete"  
 AF004875.1 "Cavia porcellus 3'-phosphoadenosine 5'-phosphosulfate synthase mRNA, complete cds"  
 AF006461.1 "AF006461 Cavia porcellus 5-HT3-A1 receptor precursor (5-HT3) mRNA, long splice variant, complete cds"  
 AF006462.1 "AF006462 Cavia porcellus 5-HT3-As receptor precursor (5-HT3) mRNA, short splice variant, complete cds"  
 AF012920.2 "AF012920 Cavia porcellus GEC-1 (gec-1) mRNA, complete cds"  
 AF018569.1 "AF018569 Cavia porcellus aldosterone synthase precursor (CYP11B2) mRNA, nuclear gene encoding mitochondrial protein, complete cds"  
 AF020345.1 "Cavia porcellus cytochrome P450 2D16 (CYP2D16) gene, complete cds"  
 AF027180.1 "AF027180 Cavia porcellus inducible nitric oxide synthase (NOS) mRNA, complete cds"  
 AF030571.1 "AF030571 Cavia porcellus apolipoprotein CIII mRNA, complete cds"  
 AF033190.1 "AF033190 Cavia porcellus surfactant protein-B mRNA, complete cds"  
 AF033346.1 "AF033346 Cavia porcellus luteinizing hormone-releasing hormone precursor (LHRH) mRNA, complete"  
 AF045454.1 "AF045454 Cavia porcellus phospholipase B (PLB) mRNA, complete cds"  
 AF049076.1 "AF049076 Cavia porcellus inwardly rectifying potassium channel Kir1.3 (Kir1.3) gene, complete cds"  
 AF052004.1 "AF052004 Cavia porcellus growth regulated protein GRO precursor (GRO) mRNA, complete cds"  
 AF052005.1 "AF052005 Cavia porcellus growth regulated protein GRO precursor (GRO) gene, complete cds"  
 AF053327.1 "AF053327 Cavia porcellus P2X2 receptor splice variant P2X2-1 mRNA, complete cds"  
 AF053328.1 "AF053328 Cavia porcellus P2X2 receptor splice variant P2X2-2 mRNA, complete cds"  
 AF053329.1 "AF053329 Cavia porcellus P2X2 receptor splice variant P2X2-3 mRNA, complete cds"  
 AF060698.1 "AF060698 Cavia porcellus C-C chemokine receptor 3 (CCR3) gene, complete cds"  
 AF071230.1 "AF071230 Cavia cobyia amiloride-sensitive epithelial sodium channel alpha subunit (alpha ENaC) mRNA"  
 AF072821.1 "AF072821 Cavia porcellus neuropeptide Y receptor type 2 (NPY-Y2) gene, complete cds"""  
 AF072822.1 "AF072822 Cavia porcellus pancreatic polypeptide receptor Y4 gene, complete cds"  
 AF088284.1 "AF088284 Cavia porcellus phosphatidic acid phosphatase 2a2 (PAP2a2) mRNA, complete cds"  
 AF104058.1 "AF104058 Cavia porcellus adrenocorticotrophic hormone receptor mRNA, complete cds"  
 AF108016.2 "AF108016 Cavia porcellus alpha-1A adrenergic receptor (ADRA1A) mRNA, complete cds"  
 AF113529.1 "AF113529 Cavia porcellus chloride channel protein (ClC-2) mRNA, alternative splice product, complete"  
 AF119622.1 "AF119622 Cavia porcellus interleukin-1 beta mRNA, complete cds"  
 AF121253.1 "AF121253 Cavia porcellus AE2 anion exchanger (AE2) mRNA, complete cds"  
 AF126833.1 "AF126833 Cavia porcellus enterophilin-1 (39DI) mRNA, complete cds"

AF127803.1 "AF127803 Cavia porcellus metalloproteinase inhibitor TIMP-2 mRNA, complete cds"  
 AF131949.1 "AF131949 Cavia porcellus tissue factor mRNA, complete cds"  
 AF132042.1 "AF132042 Cavia porcellus green opsin mRNA, complete cds"  
 AF132929.1 "AF132929 Cavia porcellus cGMP-phosphodiesterase 6 gamma subunit (cGMP-PDE6 gamma) mRNA,  
 AF133214.1 "AF133214 Cavia porcellus chloride channel Clc-3 (CLCN3) mRNA, complete cds"  
 AF134488.1 "AF134488 Cavia porcellus leukotriene B4 receptor mRNA, complete cds"  
 AF135061.1 "AF135061 Cavia porcellus neuropeptide Y receptor Y1 gene, complete cds"  
 AF145483.1 "AF145483 Cavia porcellus CDI-B1 (CDI-b1) mRNA, complete cds"  
 AF145484.1 "AF145484 Cavia porcellus CDI-B2 (CDI-b2) mRNA, complete cds"  
 AF145485.1 "AF145485 Cavia porcellus CDI-B3 (CDI-b3) mRNA, complete cds"  
 AF145486.1 "AF145486 Cavia porcellus CDI-B4 (CDI-b4) mRNA, complete cds"  
 AF145487.1 "AF145487 Cavia porcellus CDI-C1 (CDI-c1) mRNA, complete cds"  
 AF145488.1 "AF145488 Cavia porcellus CDI-C2 (CDI-c2) mRNA, complete cds"  
 AF145489.1 "AF145489 Cavia porcellus CDI-C3 (CDI-c3) mRNA, complete cds"  
 AF145490.1 "AF145490 Cavia porcellus CDI-E (CDI-e) mRNA, complete cds"  
 AF146040.1 "AF146040 Cavia porcellus clone 1 endothelial nitric oxide synthase (NOS3) mRNA, complete cds"  
 AF146041.1 "AF146041 Cavia porcellus clone 2 endothelial nitric oxide synthase (NOS3) mRNA, complete cds"  
 AF148875.1 "AF148875 Cavia porcellus beta2 microglobulin mRNA, complete cds"  
 AF165888.1 "AF165888 Cavia porcellus angiotensin type 1 receptor mRNA, complete cds"  
 AF175221.1 "AF175221 Cavia porcellus UDP glucuronosyltransferase UGT2A3 mRNA, complete cds"  
 AF180148.1 "AF180148 Cavia porcellus sperad-7 mRNA, complete cds"  
 AF180149.1 "AF180149 Cavia porcellus sperad-4 mRNA, complete cds"  
 AF180150.1 "AF180150 Cavia porcellus sperad-19 mRNA, complete cds"  
 AF183914.1 "AF183914 Cavia porcellus inward rectifier potassium channel Kir2.1 mRNA, complete cds"  
 AF183916.1 "AF183916 Cavia porcellus inward rectifier potassium channel Kir2.2 mRNA, complete cds"  
 AF183917.1 "AF183917 Cavia porcellus inward rectifier potassium channel Kir2.3 mRNA, complete cds"  
 AF183918.1 "AF183918 Cavia porcellus inward rectifier potassium channel Kir6.1 mRNA, complete cds"  
 AF183919.1 "AF183919 Cavia porcellus inward rectifier potassium channel Kir6.2 mRNA, complete cds"  
 AF183920.1 "AF183920 Cavia porcellus inward rectifier potassium channel Kir6.2 gene, complete cds"  
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 AF187874.1 "AF187874 Cavia porcellus inwardly-rectifying potassium channel Kir2.3 (KCNJ4) gene, complete cds"  
 AF187875.1 "AF187875 Cavia porcellus inwardly-rectifying potassium channel Kir2.4 (KCNJ14) gene, complete cds"  
 AF187876.1 "AF187876 Cavia porcellus inwardly-rectifying potassium channel Kir2.4 (KCNJ14) mRNA, complete "  
 AF188005.1 "AF188005 Cavia porcellus 11-beta-hydroxysteroid dehydrogenase type 1 mRNA, complete cds"

AF191279.1 "AF191278S2 Cavia porcellus 11 beta-hydroxylase precursor (CYP11B1) gene, exons 3 through 9 and complete cds; nuclear gene for mitochondrial product"

AF191281.1 "AF191280S2 Cavia porcellus aldosterone synthase precursor (CYP11B2) gene, exons 3 through 9, and complete cds; nuclear genes for mitochondrial products"

AF191297.1 "AF191297 Cavia porcellus transforming growth factor-beta (TGF-beta) mRNA, complete cds"

AF200713.1 "AF200713 Cavia porcellus inwardly rectifying potassium channel Kir7.1 (KCNJ13) mRNA, complete cds"

AF212827.1 GenBank AF212827.1 AF212827 Cavia porcellus potassium channel TASK3 (KCNK9) mRNA, complete cds""

AF227186.1 "AF227186 Cavia porcellus growth hormone receptor (GHR) mRNA, complete cds"

AF230928.1 "AF230928 Cavia porcellus ferritin light chain mRNA, complete cds"

AF233445.1 "AF233445 Cavia porcellus ferritin light chain mRNA, complete cds"

AF233853.1 "AF233853 Cavia porcellus growth hormone precursor, mRNA, complete cds"

AF236818.1 "AF236818 Cavia porcellus acyl-CoA synthetase 1 mRNA, complete cds"

AF238492.1 "AF238492 Cavia porcellus growth hormone receptor mRNA, complete cds"

AF247665.1 "AF247665 Cavia porcellus growth hormone receptor (GHR) mRNA, complete cds"

AF251798.2 "AF251798 Cavia porcellus adenosine 5'-phosphosulfate kinase/ATP sulfurylase 2 mRNA, complete cds"

AF255393.1 "AF255393 Cavia porcellus neurokinin B receptor (NK3) mRNA, complete cds"

AF256520.1 "AF256520 Cavia porcellus beta-integrin-linked kinase mRNA, complete cds"

AF257212.2 "Cavia porcellus follicle stimulating hormone beta-subunit (FSH-beta) mRNA, complete cds"

AF257213.1 "Cavia porcellus glycoprotein hormone alpha-subunit mRNA, complete cds"

AF267537.1 "AF267537 Cavia porcellus histamine H3 receptor H3L isoform mRNA, complete cds"

AF267538.1 "AF267538 Cavia porcellus histamine H3 receptor H3S isoform mRNA, complete cds"

AF312680.1 "AF312680 Cavia porcellus GEC-1 (gec-1) gene, complete cds"

AF323752.1 "AF323752 Cavia porcellus motilin precursor, mRNA, complete cds"

AF326968.1 "AF326968 Cavia porcellus chloride channel CLCN5 mRNA, complete cds"

AF355775.1 "AF355775 Cavia porcellus putative luteinizing hormone beta subunit precursor (LHbeta) gene, complete"

AF358858.1 "AF358858 Cavia porcellus histamine H4 receptor mRNA, complete cds"

AF363240.1 "AF363240 Cavia porcellus NPY receptor 5 gene, complete cds"

AF426173.1 "Cavia porcellus neurokinin 3 receptor (NK3R) mRNA, complete cds"

AF426176.1 "Cavia porcellus gonadotropin-releasing hormone receptor mRNA, complete cds"

AF428266.1 "Cavia porcellus truncated neurokinin-1 receptor mRNA, complete cds"

AF431971.1 "Cavia porcellus CC-chemokine receptor 4 gene, complete cds"

AF484219.1 "Cavia porcellus receptor activity modifying protein 1 (RAMP1) mRNA, complete cds"

AF484220.1 "Cavia porcellus receptor activity modifying protein 2 (RAMP2) mRNA, complete cds"

AF484221.2 "Cavia porcellus receptor activity modifying protein 3 (RAMP3) mRNA, complete cds"

AF494296.1 "Cavia porcellus syntaxin-interacting protein OCSYN mRNA, complete cds"

AF509591.1 "Cavia porcellus neurokinin-1 receptor mRNA, complete cds"

AF519741.1 "Cavia porcellus cardiac troponin 2 embryonic #1 isoform mRNA, complete cds"

AF519742.1 "Cavia porcellus cardiac troponin 2 embryonic #2 isoform mRNA, complete cds"  
 AF519743.2 "Cavia porcellus cardiac troponin 2 adult #1 isoform mRNA, complete cds"  
 AF519744.1 "Cavia porcellus cardiac troponin 2 adult #2 isoform mRNA, complete cds"  
 AF519745.1 "Cavia porcellus cardiac troponin 2, exclusion exon 6 #1 isoform mRNA, complete cds"  
 AF519746.1 "Cavia porcellus cardiac troponin 2, exclusion exon 6 #2 isoform mRNA, complete cds"  
 AH009714.1 "SEG\_AF191280S Cavia porcellus aldosterone synthase precursor (CYP11B2) gene, complete cds; nuclear gene for mitochondrial product"  
 AH011806.1 "SEG\_AF191278S Cavia porcellus 11beta-hydroxylase precursor (CYP11B1) gene, complete cds"  
 AJ005111.1 "CPAJ5111 Cavia porcellus mRNA for catalase, complete cds"  
 AJ005112.1 "CPAJ5112 Cavia porcellus mRNA for palmitoyl-CoA oxidase 1, complete CDS"  
 AJ222767.1 MTCPXX Cavia porcellus complete mitochondrial genome  
 AY017306.1 "Cavia porcellus nucleoside diphosphate kinase A (NDPK-A) mRNA, complete cds"  
 AY028947.1 "Cavia porcellus aryl hydrocarbon receptor mRNA, complete cds"  
 AY029175.1 "Cavia porcellus F-box protein OCP1 (OCP1) mRNA, complete cds"  
 AY036153.1 "Cavia porcellus lysosomal alpha-mannosidase (MANB) mRNA, MANB-M55 allele, complete cds"  
 AY036154.1 "Cavia porcellus lysosomal alpha-mannosidase (MANB) mRNA, MANB-R227W allele, complete cds"  
 AY036155.1 "Cavia porcellus lysosomal alpha-mannosidase (MANB) mRNA, MANB-I55 allele, complete cds"  
 AY050512.1 "Cavia porcellus potassium voltage-gated channel ISK-related family member 1 mRNA, complete cds"  
 AY050513.1 "Cavia porcellus minK-related peptide 1 mRNA, complete cds"  
 AY062255.1 "Cavia porcellus otospiralin mRNA, complete cds"  
 AY072060.1 "Cavia porcellus muscarinic receptor 3 (GPM3) mRNA, complete cds"  
 AY072062.1 "Cavia porcellus muscarinic receptor 5 (GPM5) mRNA, complete cds"  
 AY075096.1 "Cavia porcellus potassium channel TWIK-1 (KCNK1) mRNA, complete cds"  
 AY075097.1 "Cavia porcellus potassium channel TWIK-2 (KCNK6) mRNA, complete cds"  
 AY075099.1 "Cavia porcellus potassium channel KCNK7 (KCNK7) mRNA, complete cds"  
 AY075100.1 "Cavia porcellus potassium channel KCNK7 (KCNK7) gene, complete cds"  
 AY079088.1 "Cavia porcellus inwardly-rectifying potassium channel Kir5.1 (KCNJ16) gene, complete cds"  
 AY082514.1 "Cavia porcellus follicle stimulating hormone receptor (FSHR) mRNA, complete cds"  
 AY166606.1 "Cavia porcellus mu-opioid receptor mRNA, complete cds"  
 AY233002.1 "Cavia porcellus choline transporter-like protein 2 (CTL2) mRNA, complete cds"  
 AY237539.1 "Cavia porcellus interleukin-8 receptor CXCR2 mRNA, complete cds"  
 D00014.1 "GPIGG Cavia porcellus mRNA for preproglucagon, complete cds"  
 D00817.1 "GPIGMBP2 Cavia cobaya mRNA for major basic protein 2 (GMBP2), complete cds"  
 D10498.1 "GPICYPOR Cavia porcellus mRNA for NADPH-cytochrome P450 oxidoreductase, complete cds"  
 D11043.1 "GPIP451A1 Cavia porcellus mRNA for cytochrome P450 1A1, complete cds"  
 D14118.1 "GPINCP1B Guinea pig mRNA for neutrophil cationic peptide-1B, complete cds"  
 D14119.1 "GPINCP1AA Cavia porcellus gene for neutrophil cationic peptide-1A, complete cds"  
 D14120.1 "GPINCP1BB Cavia porcellus gene for neutrophil cationic peptide-1B, complete cds"

D14121.1 "GPINCP2C Cavia porcellus gene for neutrophil cationic peptide-2, complete cds"  
D14122.1 " Cavia porcellus DNA for prepro-GNCPs, complete cds"  
D15074.1 "GPIHHR Guinea pig gene for histamine H1 receptor, complete cds"  
D16203.1 "GPIACRSN Cavia porcellus mRNA for sp32, complete cds"  
D16363.1 "GPICP450 Cavia porcellus mRNA for cytochrome P450, complete cds"  
D16669.1 "GPILTA4H Cavia porcellus lta4h mRNA for LTA4 hydrolase, complete cds"  
D21232.1 "GPIG1IPAS Cavia porcellus mRNA for Gi1 protein alpha-subunit, complete cds"  
D21233.1 "GPIG2PAS Cavia porcellus mRNA for Gi2 protein alpha-subunit, complete cds"  
D21234.1 "GPIG3PAS Cavia porcellus mRNA for Gi3 protein alpha-subunit, complete cds"  
D21854.1 "GPIHKAAS Cavia porcellus mRNA for H<sup>+</sup>,K<sup>+</sup> -ATPase alpha subunit, complete cds"  
D26487.1 "GPICYP450 Guinea pig mRNA for cytochrome P450, complete cds"  
D28515.1 "GPIGPI1 Cavia porcellus mRNA for cytochrome P450, complete cds"  
D37971.1 "GPINCP1A1 Guinea pig gene for neutrophil cationic peptide-1A (GNCP-1A), complete cds (exon1, exon2, exon3)"  
D37972.1 "GPINCP1B2 Guinea pig gene for neutrophil cationic peptide-1B (GNCP-1B), complete cds (exon1, exon2, exon3)"  
D37973.1 "GPINCP23 Guinea pig gene for neutrophil cationic peptide-2, complete cds (exon1, exon2, exon3), clone 16"  
D37974.1 "GPINCP24 Guinea pig gene for neutrophil cationic peptide-2, complete cds (exon1, exon2, exon3), clone 22"  
D49416.1 "GPIDAFGPI Guinea pig mRNA for decay-accelerating factor (isoform GDabGPI), complete cds"  
D49417.1 "GPIDAFCLA Guinea pig mRNA for decay-accelerating factor (isoform GDabc-TCL), complete cds"  
D49418.1 "GPIDAFCCB Guinea pig mRNA for decay-accelerating factor (isoform GDab-TCL), complete cds"  
D49419.1 "GPIDAFCSA Guinea pig mRNA for decay-accelerating factor (isoform GDa-TCS), complete cds"  
D49421.1 "GPIDAFSEC Guinea pig mRNA for decay-accelerating factor (isoform GDa-SEC), complete cds"  
D49731.1 "GPICP450A1 Guinea pig mRNA for cytochrome P450, complete cds"  
D50457.1 "GPICYPIA2 Guinea pig mRNA for CYP1A2, complete cds"  
D55667.1 "D55656S12 Cavia porcellus DAF gene for decay-accelerating factor, exon 12 (G/3'UT) and complete cds"  
D63674.1 "GPIAA2AR Guinea pig mRNA for adenosine A2a receptor, complete cds"  
D67037.1 " Guinea pig mRNA for Paf-acetylhydrolase, complete cds"  
D83208.1 "GPIUBIY Cavia cobaya mRNA for ubiquitin, complete cds"  
D83209.1 "GPIUBIZ Cavia cobaya mRNA for ubiquitin extention protein, complete cds"  
D84131.1 " Cavia porcellus mRNA for membrane cofactor protein precursor, complete cds"  
D84132.1 " Cavia porcellus mRNA for membrane cofactor protein precursor, complete cds"  
D84133.1 " Cavia porcellus mRNA for membrane cofactor protein precursor, complete cds"  
D84338.1 "GPIAMA Cavia porcellus mRNA for alpha-macroglobulin, complete cds"  
D84339.1 "GPIMSPB Cavia porcellus mRNA for murinoglobulin, complete cds"  
D84448.1 "GPINKAB3S Cavia cobaya mRNA for Na<sup>+</sup>,K<sup>+</sup>-ATPase beta-3 subunit, complete cds"  
D87405.1 " Cavia porcellus CAPI1 mRNA for neutrophil cationic antibacterial polypeptide of 11 kDa, complete cds"  
D88358.1 " Cavia porcellus mRNA for membrane cofactor protein(GMP1-full), complete cds"  
D88425.1 " Cavia cobaya mRNA for serine/threonine kinase, complete cds"

D90251.1 "GPIGMBP1 Cavia cobaya mRNA for major basic protein 1 (GMBP1), complete cds"  
E03908.1 cDNA sequence coding for guinea pig platelet activating factor  
J00051.1 "GPILACTAL Cavia porcellus pre-alpha-lactalbumin mRNA, complete cds"  
J05047.1 "GPIIRRA Guinea pig insulin receptor-related receptor (IRR) gene, complete cds"  
K02233.1 "GPIINS Guinea pig insulin gene, complete cds"  
L04985.1 "GPIIMCPIA Cavia porcellus monocyte chemoattractant protein-1 (MCP-1) mRNA, complete cds"  
L04986.1 "GPIINAPIA Cavia porcellus neutrophil attractant protein-1 (NAP-1) gene, complete cds"  
L10037.1 "GPIFCMOX Cavia porcellus flavin-containing monooxygenase gene, complete cds"  
L13196.1 "GPIGCR Cavia porcellus glucocorticoid receptor mRNA, complete cds"  
L20462.1 "GPIISK Cavia cobaya potassium channel mRNA, complete cds"  
L26335.1 "GPIZFPA Cavia porcellus zinc finger protein (zfoC1) mRNA, complete cds"  
L37081.1 "GPIFMO5A Cavia porcellus flavin containing monooxygenase 5 (FM05) mRNA, complete cds"  
M11713.1 "GPIINSA Guinea pig preproinsulin mRNA, complete cds"  
M15483.1 "GPILPPL Guinea pig lipoprotein lipase mRNA, complete cds"  
M15808.1 "GPIINRAS Guinea pig N-ras oncogene, complete cds"  
M19646.1 "GPITGLTAA Guinea pig transglutaminase mRNA, complete cds"  
M25387.1 "GPIIAPP Guinea pig (C.cobaya) islet amyloid polypeptide mRNA, complete cds"  
M26936.1 "GPICRYZA C.porcellus zeta-crystallin mRNA, complete cds"  
M29543.1 "GPIPPP6 Guinea pig pancreatic polypeptide 6 (GPPP-6) mRNA, complete cds"  
M34054.1 "GPIGPC3A Guinea pig complement C3 protein (GPC3) mRNA, complete cds"  
M57269.1 "GPICONTRA Guinea pig contraptin mRNA, complete cds"  
M57270.1 "GPIAPSA1 Guinea pig alpha-1-antitrypsinases S mRNA, complete cds"  
M58049.1 "GPIIDOPADD C Guinea pig aromatic-L-amino acid decarboxylase (DDC) mRNA, complete cds"  
M59913.1 "GPIAPOC Guinea pig apolipoprotein CII mRNA, complete cds"  
M62543.1 "GPICD19 Guinea pig CD19 mRNA, complete cds"  
M77760.1 "GPICRRP Guinea pig CRRP protein, complete cds"  
M88652.1 "GPIPROGAS Cavia porcellus progastriccin mRNA, complete cds"  
M88653.1 "GPIPROCAT Cavia porcellus procathepsin E mRNA, complete cds"  
U04092.1 "CPU04092 Cavia porcellus Hartley kappa opioid receptor mRNA, complete cds"  
U04201.1 "CPU04201 Cavia porcellus Hartley A2 adenosine receptor mRNA, complete cds"  
U04279.1 "CPU04279 Cavia porcellus Hartley A1 adenosine receptor mRNA, complete cds"  
U04369.1 "CPU04369 Cavia porcellus Hartley opioid-receptor-like protein mRNA, complete cds"  
U04955.1 "CPU04955 Cavia porcellus sodium-calcium exchanger mRNA, complete cds"  
U06871.1 "CPU06871 Cavia porcellus NIH inbred strain 2 chiral-specific 3 alpha-hydroxysteroid sulfotransferase mRNA, complete cds"  
U09552.1 "CPU09552 Cavia porcellus NIH inbred strain 2 adrenocortical estrogen sulfotransferase mRNA, complete cds"  
U13234.1 "CPU13234 Cavia porcellus p50 acrosomal pentaxin-like glycoprotein mRNA, complete cds"  
U13236.1 "CPU13236 Cavia porcellus apexin mRNA, complete cds"



U16138.1 Cavia porcellus preproenkephalin gene, complete cds"  
 U18941.1 Cavia porcellus eotaxin precursor mRNA, complete cds"  
 U21486.1 Cavia porcellus adrenal cytochrome P-450 2D mRNA, complete cds"  
 U22060.1 Cavia porcellus ADAM 5 protein precursor (ADAM 5) mRNA, complete cds"  
 U22061.1 Cavia porcellus ADAM 6 protein precursor (ADAM 6) mRNA, complete cds"  
 U23501.1 Cavia porcellus cytochrome P450 (CYP1A2) mRNA, complete cds"  
 U25440.1 Cavia porcellus histamine H2 receptor gene, complete cds"  
 U25722.1 Cavia porcellus alpha-2A adrenoceptor gene, complete cds"  
 U25723.1 Cavia porcellus alpha-2B adrenoceptor gene, complete cds"  
 U25724.1 Cavia porcellus alpha-2C adrenoceptor gene, complete cds"  
 U34588.1 Cavia porcellus interleukin-5 (IL-5) mRNA, complete cds"  
 U35115.1 Cavia cobaya hydroxysteroid sulfotransferase 2 (gpHST2) mRNA, complete cds"  
 U35712.1 Cavia porcellus acrosomal autoantigen 1 mRNA, complete cds"  
 U38912.1 Cavia porcellus preprodynorphin mRNA, complete cds"  
 U39839.1 Cavia porcellus tumor necrosis factor alpha mRNA, complete cds"  
 U40869.1 Cavia porcellus pulmonary surfactant protein A (SP-a) mRNA, complete cds"  
 U41372.1 Cavia porcellus serotonin 5-hydroxytryptamine7 receptor mRNA, complete cds"  
 U50188.1 Cavia porcellus CGRP-receptor component protein mRNA, complete cds"  
 U50545.1 Cavia porcellus cytosolic beta-glucosidase mRNA, complete cds"  
 U55215.1 Cavia porcellus interleukin-5 receptor alpha precursor (gpIL-5ra) mRNA, complete cds"  
 U55944.1 Cavia porcellus 3beta-hydroxysteroid sulfotransferase mRNA, complete cds"  
 U59711.1 Cavia porcellus seminal vesicle secretory protein SVP-1/-3/-4 gene, complete cds"  
 U73589.1 Cavia porcellus sperad-a (Cpsperad) mRNA, complete cds"  
 U73590.1 Cavia porcellus sperad-b (Cpsperad) mRNA, complete cds"  
 U75654.1 Cavia porcellus acrosomal matrix component AM67 precursor mRNA, complete cds"  
 U77036.1 Cavia porcellus tumor necrosis factor alpha mRNA, complete cds"  
 U77037.1 Cavia porcellus RANTES mRNA, complete cds"  
 U77842.1 Cavia porcellus oncomodulin CBP-15 mRNA, complete cds"  
 U80852.1 Cavia cobaya 5-hydroxytryptamine 1F receptor gene, complete cds"  
 U82174.1 Cavia porcellus 5-HT1D receptor gene, complete cds"  
 U82175.1 Cavia porcellus 5-HT1B receptor gene, complete cds"  
 U82982.2 Cavia porcellus GEC-3 (gec-3) mRNA, complete cds"  
 U83464.2 Cavia porcellus volume-regulated outwardly-rectifying chloride channel (CLC-3) mRNA  
 U84498.1 Cavia porcellus transmembrane 5-HT transporter mRNA, complete cds"  
 U86103.1 Cavia porcellus anaphylatoxin C5a receptor mRNA, complete cds"  
 U86378.1 Cavia porcellus anaphylatoxin C3a receptor mRNA, complete cds"  
 U92463.1 Cavia porcellus calcitonin receptor mRNA, complete cds"

U94688.1 "CPU94688 Cavia porcellus interleukin-5 receptor beta chain (IL5) mRNA, complete cds"  
U95810.1 "CPU95810 Cavia porcellus GRO mRNA, complete cds"  
X56332.1 CCPH20 Cavia cobaya mRNA for PH-20 protein  
Z11719.1 CCPH30ASP C.cobaya PH-30 alpha mRNA for sperm protein  
Z35481.1 CCOC2 C.cobaya (NIH) ocp-2 mRNA

Table 2. List of *Sus scrofa* genes used in the design of oligonucleotide array.

ID	Description
AB000170.1	" Porcine mRNA for endopeptidase 24.16, complete cds"
AB000171.1	" Porcine mRNA for endopeptidase 24.16, complete cds"
AB000172.1	" Porcine mRNA for endopeptidase 24.16, complete cds"
AB000173.1	" Porcine mRNA for endopeptidase 24.16, complete cds"
AB000174.1	" Porcine mRNA for endopeptidase 24.16, complete cds"
AB000175.1	" Porcine mRNA for endopeptidase 24.16, complete cds"
AB000425.1	"AB00041S15 Sus scrofa DNA for endopeptidase 24.16, exon 16 and complete cds"
AB000883.1	" Sus scrofa mRNA for epoxide hydrolase, complete cds"
AB000884.1	" Sus scrofa mRNA for glutathione S-transferase, complete cds"
AB000885.1	" Sus scrofa mRNA for Cytochrome P-450-j, complete cds"
AB000886.1	" Sus scrofa mRNA for Propionyl-CoA carboxylase beta chain precursor, complete cds"
AB000910.1	" Sus scrofa mRNA for ribosomal protein, complete cds"
AB000911.1	" Sus scrofa mRNA for ribosomal protein, complete cds"
AB003362.2	" Sus scrofa mRNA for IGF-1 receptor, complete cds"
AB003363.1	" Sus scrofa S100C gene, complete cds"
AB004061.1	" domestic pig mRNA for STAT2, complete cds"
AB004800.1	" Sus scrofa mRNA for S100C protein, complete cds"
AB005545.1	" Sus scrofa mRNA for C-reactive protein, complete cds"
AB005546.1	" Sus scrofa mRNA for porcine serum amyloid P component (SAP), complete cds"
AB005624.1	" Sus scrofa mRNA for rig-analog DNA-binding protein, complete cds"
AB006011.1	" Sus scrofa mRNA for JAK2, complete cds"
AB008376.1	" Sus scrofa mRNA for 17-kDa PKC-potentiated inhibitory protein of PPI, complete cds"
AB009387.1	" Sus scrofa mRNA for topoisomerase II, complete cds"
AB009659.1	" Sus scrofa SLADQB mRNA for MHC class II, complete cds"
AB009988.1	" Sus scrofa mRNA for lanosterol 14-demethylase, complete cds"
AB010003.1	" Sus scrofa mRNA for interleukin-18, complete cds"
AB010577.1	" Sus scrofa SLA-DQB*G01 mRNA for MHC class II SLA-DQ beta chain precursor, complete cds"
AB010969.1	" Sus scrofa WT1 homologue mRNA, complete cds"
AB012858.1	" Sus scrofa mRNA for MHC class II antigen, complete cds"
AB015065.1	" Sus scrofa leucomystax mitochondrial cytb gene for cytochrome b, complete cds, isolate: Japanese wild boar 2""""
AB015066.1	" Sus scrofa leucomystax mitochondrial cytb gene for cytochrome b, complete cds, isolate: Japanese wild boar 4""""
AB015067.1	" Sus scrofa leucomystax mitochondrial cytb gene for cytochrome b, complete cds, isolate: Japanese wild boar 55""""
AB015068.1	" Sus scrofa leucomystax mitochondrial cytb gene for cytochrome b, complete cds, isolate: Japanese wild boar 11""""
AB015069.1	" Sus scrofa leucomystax mitochondrial cytb gene for cytochrome b, complete cds, isolate: Japanese wild boar 1""""

AB015070.1 " Sus scrofa leucomystax mitochondrial cytb gene for cytochrome b, complete cds, isolate: Japanese wild boar 72""  
 AB015071.1 " Sus scrofa riukiuanus mitochondrial cytb gene for cytochrome b, complete cds, isolate: Ryukyu wild boar 1""  
 AB015072.1 " Sus scrofa riukiuanus mitochondrial cytb gene for cytochrome b, complete cds, isolate: Ryukyu wild boar 2""  
 AB015073.1 " Sus scrofa riukiuanus mitochondrial cytb gene for cytochrome b, complete cds, isolate: Ryukyu wild boar 5""  
 AB015074.1 " Sus scrofa riukiuanus mitochondrial cytb gene for cytochrome b, complete cds, isolate: Ryukyu wild boar 6""  
 AB015075.1 " Sus scrofa riukiuanus mitochondrial cytb gene for cytochrome b, complete cds, isolate: Ryukyu wild boar 10""  
 AB015076.1 " Sus scrofa domesticus mitochondrial cytb gene for cytochrome b, complete cds, isolate: Satsuma 28""  
 AB015077.1 " Sus scrofa domesticus mitochondrial cytb gene for cytochrome b, complete cds, isolate: Meishan 1""  
 AB015078.1 " Sus scrofa domesticus mitochondrial cytb gene for cytochrome b, complete cds, isolate: Ohmini miniature pig 208""  
 AB015079.1 " Sus scrofa domesticus mitochondrial cytb gene for cytochrome b, complete cds, isolate: Large White 1""  
 AB015080.1 " Sus scrofa domesticus mitochondrial cytb gene for cytochrome b, complete cds, isolate: Large White 1""  
 AB015082.1 " Sus scrofa mitochondrial cytb gene for cytochrome b, complete cds, isolate: European wild boar 1""  
 AB015083.1 " Sus scrofa mitochondrial cytb gene for cytochrome b, complete cds, isolate: European wild boar 3""  
 AB015759.1 " Sus scrofa mRNA for mat-8, complete cds"  
 AB016735.1 " Sus scrofa mRNA for protein phosphatase-1 delta, complete cds"  
 AB016793.1 " Sus scrofa mRNA for huntingtin, complete cds"  
 AB016798.1 " Sus scrofa mRNA for ribosomal protein L29/cell surface heparin binding protein HIP, complete cds"  
 AB017196.1 " Sus scrofa ACY-1 and rPL29/HIP genes, complete cds"  
 AB018668.1 " Sus scrofa mRNA for lectin-like oxidized LDL receptor-1, complete cds"  
 AB018743.1 " Sus scrofa mRNA for 25-hydroxyvitamin D3 1alpha-hydroxylase, complete cds"  
 AB019185.1 " Sus scrofa NPY Y5 gene for neuropeptide Y receptor type 5, complete cds"  
 AB019792.1 " Sus scrofa mRNA for endozepine, complete cds"  
 AB021664.1 " Sus scrofa gene for melanocortin 4 receptor, complete cds"  
 AB021678.1 " Sus scrofa gene for neuropeptide Y receptor type 4, complete cds"  
 AB021929.1 " Sus scrofa SUS2DD mRNA for dimeric dihydrodiol dehydrogenase, complete cds"  
 AB022425.1 " Sus scrofa mRNA for kallikrein, complete cds"  
 AB022426.1 " Sus scrofa mRNA for FXII, complete cds"  
 AB025260.1 " Sus scrofa mRNA for myosin heavy chain 2a, complete cds"  
 AB025261.1 " Sus scrofa mRNA for myosin heavy chain 2b, complete cds"  
 AB025262.1 " Sus scrofa mRNA for myosin heavy chain 2x, complete cds"  
 AB026121.2 " Sus scrofa mRNA for CD80 protein precursor, complete cds"  
 AB027132.1 " Sus scrofa mRNA for fatty acid amide hydrolase, complete cds"  
 AB027296.1 " Sus scrofa mRNA for interleukin-1 beta converting enzyme, complete cds"  
 AB027297.1 " Sus scrofa mRNA for fas-ligand, complete cds"  
 AB029345.1 " Sus scrofa mRNA for caspase-3, complete cds"  
 AB030002.1 " Sus scrofa gene for SGRF, complete cds"  
 AB031323.1 " Sus scrofa mRNA for matrixin, complete cds"

AB031324.1 " Sus scrofa mRNA for matrilysin-related protein, complete cds"  
 AB031955.1 " Sus scrofa mRNA for p27Kip1, complete cds, clone:K1"  
 AB031956.1 " Sus scrofa mRNA for p27Kip1, complete cds, clone:K2"  
 AB031957.1 " Sus scrofa mRNA for p27Kip1, complete cds, clone:K3"  
 AB032169.1 " Sus scrofa SLA-DMA mRNA for SLA-DM alpha chain, complete cds"  
 AB032195.2 " Sus scrofa mRNA for poly-Ig receptor, complete cds"  
 AB032550.1 " Sus scrofa mRNA for amyloid precursor protein, complete cds"  
 AB032555.1 " Sus scrofa EsD mRNA for esterase D, allele:B, complete cds"  
 AB032575.1 " Sus scrofa KCNE1 mRNA for IsK, complete cds"  
 AB035206.1 " Sus scrofa mRNA for dihydrolipoamide succinyltransferase, complete cds"  
 AB035380.2 " Sus scrofa IL-7 mRNA for interleukin-7, complete cds"  
 AB035703.1 " Sus scrofa mRNA for preproghrelin, complete cds"  
 AB035704.1 " Sus scrofa mRNA for preproghrelin-27, complete cds"  
 AB036335.1 " Sus scrofa JAK1 mRNA for Janus kinase 1, complete cds"  
 AB036336.1 " Sus scrofa mRNA for kinase-defective JAK2 variant, complete cds"  
 AB036337.1 " Sus scrofa mRNA for kinase-defective JAK2 variant, complete cds"  
 AB036739.1 " Sus scrofa mRNA for dihydrolipoamide acetyltransferase, complete cds"  
 AB038153.2 " Sus scrofa mRNA for CD80 protein precursor, complete cds"  
 AB038362.1 " Sus scrofa EsD mRNA for esterase D, allele:A, complete cds"  
 AB038652.1 " Sus scrofa pMCT7 mRNA for miniature swine mast cell tryptase, complete cds"  
 AB040441.1 " Sus scrofa IL7 mRNA for interleukin 7 precursor, complete cds"  
 AB040442.1 " Sus scrofa IL2RG mRNA for interleukin 2 receptor gamma, complete cds"  
 AB040443.1 " Sus scrofa mRNA for CD40L, complete cds"  
 AB041935.1 " Sus scrofa Il-2 gene for interleukin 2 precursor, complete cds"  
 AB042982.1 " AB042975S8 Sus scrofa CYP51 gene for lanosterol 14 alpha-demethylase, exon 10 and complete cds"  
 AB044390.1 " Sus scrofa mut mRNA for aldose 1-epimerase, complete cds"  
 AB046120.1 " Sus scrofa mRNA for VE-cadherin, complete cds"  
 AB046171.1 " Sus scrofa mRNA for beta-catenin, complete cds"  
 AB046172.1 " Sus scrofa mRNA for plakoglobin, complete cds"  
 AB046174.1 " Sus scrofa mRNA for cyclin D2, complete cds"  
 AB048832.1 " Sus scrofa DNASE1 mRNA for deoxyribonuclease 1, complete cds"  
 AB049332.1 " AB049327S6 Sus scrofa IL7 gene for interleukin 7, exon 6 and complete cds"  
 AB049760.1 " Sus scrofa CD80/B7-1 mRNA for CD80 protein precursor, complete cds"  
 AB050389.1 " Sus scrofa shas2 mRNA for hyaluronan synthase 2, complete cds"  
 AB051422.1 " Sus scrofa B2R mRNA for bradykinin type 2 receptor, complete cds"  
 AB052254.1 " Sus scrofa CYP1A1 mRNA for cytochrome P450 1A1, complete cds"  
 AB052255.1 " Sus scrofa CYP2A19 mRNA for cytochrome P450 2A19, complete cds"

AB052256.1 " Sus scrofa CYP2B22 mRNA for cytochrome P450 2B22, complete cds"  
 AB052257.1 " Sus scrofa CYP2C33v4 mRNA for cytochrome P450 2C33v4, complete cds"  
 AB052258.1 " Sus scrofa CYP2C49 mRNA for cytochrome P450 2C49, complete cds"  
 AB052259.1 " Sus scrofa CYP2E1 mRNA for cytochrome P450 2E1, complete cds"  
 AB052662.1 " Sus scrofa mRNA for CysLT2, complete cds"  
 AB052686.1 " Sus scrofa mRNA for CysLTI receptor, complete cds"  
 AB052738.1 " Sus scrofa mRNA for Smad3, complete cds"  
 AB053226.1 " Sus scrofa MyHC-slow mRNA for myosin heavy chain slow isoform, complete cds"  
 AB053300.1 " Sus scrofa mRNA for histamine H4 receptor, complete cds"  
 AB053483.1 " Sus scrofa mRNA for Smad4, complete cds"  
 AB055884.1 " Sus scrofa mRNA for 60S ribosomal protein L35, complete cds"  
 AB057440.1 " Sus scrofa gene for interleukin-8, complete cds"  
 AB062757.1 " Sus scrofa mRNA for carbonyl reductase/NADP-retinol dehydrogenase, complete cds"  
 AB063244.1 " Sus scrofa mRNA for urotensin II transcript variant 1, complete cds"  
 AB063245.1 " Sus scrofa mRNA for urotensin II transcript variant 1, complete cds"  
 AB063246.1 " Sus scrofa mRNA for urotensin II transcript variant 2, complete cds"  
 AB067771.2 " Sus scrofa mRNA for Rh protein, complete cds"  
 AB069764.1 " Sus scrofa FasL gene for Fas-ligand, complete cds"  
 AB071394.1 " Sus scrofa TLR9 mRNA for Toll-like receptor 9, complete cds"  
 AB076661.1 " AB076566S2 Sus scrofa insI7 gene for insulin-like 7, exon 2, complete cds"  
 AB079258.1 " Sus scrofa IL-18Ra mRNA for interleukin-18 receptor alpha chain, complete cds"  
 AB079529.1 " Sus scrofa TCR-b mRNA for T cell receptor beta-chain, complete cds, clone:T23"  
 AB079530.1 " Sus scrofa TCR-b mRNA for T cell receptor beta-chain, complete cds, clone:P2"  
 AB079894.1 " Sus scrofa gene for T-cell receptor beta-chain, Dbeta-1 to 3' End Vbeta region"  
 AB080655.1 " Sus scrofa mRNA for tryptase, complete cds"  
 AB084277.1 " Sus scrofa prepro-NPW mRNA for prepro-Neuropeptide W polypeptide, complete cds"  
 AB090162.1 " Sus scrofa mRNA for calcitonin receptor-like receptor, complete cds"  
 AB090163.1 " Sus scrofa mRNA for receptor activity-modifying protein 1, complete cds"  
 AB090164.1 " Sus scrofa mRNA for receptor activity-modifying protein 2, complete cds"  
 AB090165.1 " Sus scrofa mRNA for receptor activity-modifying protein, complete cds"  
 AB090356.1 " Sus scrofa CCR7 mRNA for chemokine receptor 7, complete cds"  
 AB090872.1 " AB090870S3 Sus scrofa CCR7 gene for chemokine receptor 7, exon 3 and complete cds"  
 AB091391.1 " Sus scrofa RAG-2 gene for recombination activating protein 2, complete cds"  
 AB091392.1 " Sus scrofa RAG-1 gene for recombination activating protein 1, complete cds"  
 AB092975.1 " Sus scrofa TLR8 mRNA for Toll-like receptor 8, complete cds"  
 AB094586.1 " Sus scrofa CRSP mRNA for calcitonin receptor-stimulating peptide, complete cds"  
 AB104465.1 " Sus scrofa mRNA for organic anion transporter OATv1, complete cds"

AB104654.1 " Sus scrofa PKR mRNA for double stranded RNA-dependent protein kinase, complete cds"  
 AB106108.1 " Sus scrofa PPARGC-1 mRNA for peroxisome proliferator activated receptor, gamma, coactivator 1, complete cds"  
 AF000134.1 "PIGB2AR Sus scrofa beta-2-adrenergic receptor gene, complete cds"  
 AF001169.1 "SSAF001169 Sus scrofa preprocaathepsin H mRNA, complete cds"  
 AF005273.1 "AF005273 Sus scrofa domestica submaxillary apomucin mRNA, complete cds"  
 AF005779.2 "AF005779 Sus scrofa neuropeptide Y Y1 receptor mRNA, complete cds"  
 AF005780.2 "AF005780 Sus scrofa neuropeptide Y Y2 receptor mRNA, complete cds"  
 AF008440.2 "AF008440 Sus scrofa steroid 5-alpha-reductase 2 (ST5AR2) mRNA, complete cds"  
 AF008588.1 "AF008588 Sus scrofa succinyl-CoA synthetase alpha subunit (SCS) mRNA, complete cds"  
 AF008589.1 "AF008589 Sus scrofa succinyl-CoA synthetase alpha subunit (SCS) alternatively spliced mRNA, complete cds"  
 AF008947.1 "AF008947 Sus scrofa rhodopsin (PIGRHO1) mRNA, complete cds"  
 AF009673.1 "AF009673 Sus scrofa Na/nucleoside cotransporter (pkCNT1) mRNA, complete cds"  
 AF014001.1 "AF014001 Sus scrofa MHC class I antigen (PA14) mRNA, complete cds"  
 AF014002.1 "AF014002 Sus scrofa MHC class I antigen (PA1) mRNA, complete cds"  
 AF014003.1 "AF014003 Sus scrofa MHC class I antigen (PC1) mRNA, complete cds"  
 AF014004.1 "AF014004 Sus scrofa MHC class I antigen (PC14) mRNA, complete cds"  
 AF014005.1 "AF014005 Sus scrofa MHC class I antigen (PD1) mRNA, complete cds"  
 AF014006.1 "AF014006 Sus scrofa MHC class I antigen (PD14) mRNA, complete cds"  
 AF016251.2 "AF016251 Sus scrofa POU-domain transcriptional regulator (PIT-1) mRNA, complete cds"  
 AF016388.1 "AF016388 Sus scrofa membrane bound cytochrome b5 (CYB5) mRNA, complete cds"  
 AF019623.1 "AF019623 Sus scrofa myostatin (MSTN) mRNA, complete cds"  
 AF020302.1 "AF020302 Sus scrofa CD59 mRNA, complete cds"  
 AF020322.1 "SSCYPVII6 Sus scrofa cholesterol 7alpha-hydroxylase (cyp7) gene, exon 6 and complete cds"  
 AF021140.1 "AF021140 Sus scrofa inward rectifier potassium channel (IRK1) mRNA, complete cds"  
 AF025377.1 "AF025377 Sus scrofa follicle-stimulating hormone receptor (pFSHR) mRNA, complete cds"  
 AF026000.1 "AF026000 Sus scrofa calcium-activated potassium channel alpha subunit mRNA, complete cds"  
 AF026006.1 "AF026006 Sus scrofa delayed rectifier potassium channel Kv2.1 (DRK1) mRNA, complete cds"  
 AF026976.2 "AF026976 Sus scrofa leptin (ob) mRNA, complete cds"  
 AF027304.1 "AF027304 Sus scrofa secretor type alpha(1,2)fucosyltransferase (FUT2) gene, complete cds"  
 AF027652.1 "AF027652 Sus scrofa L-3-hydroxyacyl-CoA dehydrogenase precursor (HAD) mRNA, nuclear gene encoding mitochondrial protein, complete cds""  
 AF028007.1 "AF028007 Sus scrofa long-chain 3-ketoacyl-CoA thiolase (LCTHIO) mRNA, nuclear gene encoding mitochondrial protein, complete cds""  
 AF028609.1 "AF028609 Sus scrofa long-chain enoyl-CoA hydratase:3-hydroxyacyl-CoA dehydrogenase precursor (LCHYDHAD) mRNA, nuclear gene encoding mitochondrial protein, complete cds""  
 AF028807.1 "AF028807 Sus scrofa K-Cl cotransporter mRNA, complete cds"  
 AF029696.1 " Sus scrofa SOX-9 protein mRNA, complete cds"  
 AF031666.1 " Sus scrofa prepro-beta-defensin 1 mRNA, complete cds"

AF034253.1 Sus scrofa mitochondrion, complete genome"  
 AF035816.1 Sus scrofa DAX-1 (Dax-1) mRNA, allele 21bpdel, complete cds"  
 AF036757.1 Sus scrofa uncoupling protein homolog (UCP2) mRNA, complete cds"  
 AF039170.1 Sus scrofa cytochrome oxidase subunit 2 (COII) gene, partial cds; tRNA-Lys gene, complete sequence; ATPase subunit 8 gene, complete cds; and ATPase subunit 6 gene, partial cds, mitochondrial genes for mitochondrial products""""  
 AF041255.1 Sus scrofa pyridoxal kinase mRNA, complete cds"  
 AF042454.1 Sus scrofa beta-1 adrenergic receptor gene, complete cds"  
 AF043295.1 Sus scrofa skeletal muscle specific calpain mRNA, complete cds"  
 AF047026.1 Sus scrofa seminal plasma protein pBI precursor, mRNA, complete cds"  
 AF050177.1 Sus scrofa putative blood group A transferase (A) mRNA, complete cds"  
 AF050502.1 Sus scrofa folic poly-gamma-glutamate carboxypeptidase mRNA, complete cds"  
 AF052691.1 Sus scrofa leptin (ob) mRNA, complete cds"  
 AF056045.1 Sus scrofa CD1 antigen (pCD1.1) gene, complete cds"  
 AF056489.1 Sus scrofa myo-inositol monophosphatase mRNA, complete cds"  
 AF058320.1 Sus scrofa yolk sac permease-like molecule 2 (YSPL2) mRNA, complete cds"  
 AF058328.1 Sus scrofa complement inhibitor CD59 (CD59) mRNA, complete cds"  
 AF059245.1 Sus scrofa peroxisome proliferator-activated receptor gamma 2 (PPARG) mRNA, complete cds"  
 AF059492.1 Sus scrofa CD1 antigen (CD1.1) mRNA, complete cds"  
 AF059493.1 Sus scrofa proteasome subunit LMP7 (Lmp7) mRNA, complete cds"  
 AF060221.1 Sus scrofa deoxyribonuclease II mRNA, complete cds"  
 AF062384.1 Sus scrofa IgG heavy chain precursor, mRNA, complete cds"  
 AF064555.1 Sus scrofa preproinsulin mRNA, partial cds"  
 AF064741.1 Sus scrofa carboxylesterase mRNA, complete cds"  
 AF064742.1 Sus scrofa alpha-amylase mRNA, complete cds"  
 AF067419.1 Sus scrofa membrane-type 1 matrix metalloproteinase (MT1-MMP) mRNA, complete cds"  
 AF069996.2 Sus scrofa transcription factor NFATmac mRNA, complete cds"  
 AF073800.1 Sus scrofa fibrillin-1 precursor (FBN1) mRNA, complete cds"  
 AF075241.1 Sus scrofa prepro-orexin mRNA, complete cds"  
 AF076222.1 Sus scrofa carboxypeptidase A1 precursor (PCPA1) mRNA, complete cds"  
 AF077665.1 Sus scrofa voltage-dependent calcium channel alpha-2 delta subunit precursor, mRNA, complete cds"  
 AF078839.1 Sus scrofa Rho related protein Rnd3/Rho8 (RND3) mRNA, complete cds"  
 AF085482.1 Sus scrofa insulin-like growth factor-binding protein 3 (IGFBP-3) mRNA, complete cds"  
 AF087679.1 Sus scrofa tropomyosin 4 (TPM4) mRNA, complete cds"  
 AF092422.1 Sus scrofa transmembrane leptin receptor (LEPR) mRNA, LEPR-Rb allele, complete cds"  
 AF095584.1 Sus scrofa epithelial chloride channel protein (AECC) mRNA, complete cds"  
 AF095744.1 Sus scrofa uncoupling protein 3 (UCP3) mRNA, complete cds"  
 AF098067.1 Sus scrofa tumor suppressor p53 (p53) mRNA, complete cds"



AF100665.1 " Sus scrofa MHC class I antigen PDI-like protein (SLA1) mRNA, SLA1-a allele, complete cds"  
 AF102856.1 "AF102856 Sus scrofa leptin (ob) mRNA, complete cds"  
 AF103946.1 "AF103946 Sus scrofa peroxisome proliferator activated receptor gamma 2 (PPAR gamma 2) mRNA, complete cds"  
 AF106081.2 "AF106081 Sus scrofa neuropeptide Y1 receptor (NPY1R) gene, complete cds"  
 AF106082.1 "AF106082 Sus scrofa neuropeptide Y2 receptor (NPY2R) gene, complete cds"  
 AF106083.1 "AF106083 Sus scrofa neuropeptide Y5 receptor (NPY5R) gene, complete cds"  
 AF109068.1 "AF109068 Sus scrofa cytochrome P450 mRNA, complete cds"  
 AF110735.2 "AF110735 Sus scrofa peroxiredoxin 5 (PRDX5) mRNA, complete cds"  
 AF117655.1 "AF117655 Sus scrofa 5-HT1D receptor mRNA, complete cds"  
 AF120326.1 " Sus scrofa insulin-like growth factor binding protein 2 mRNA, complete cds"  
 AF124054.2 "AF460979S4 Sus scrofa platelet-activating factor receptor (PAF<sub>r</sub>) gene, exon 5 and complete cds; alternatively spliced"  
 AF124298.1 "AF124298 Sus scrofa p53 protein mRNA, complete cds"  
 AF125537.1 "AF125537 Sus scrofa decorin mRNA, complete cds"  
 AF128837.1 "AF128837 Sus scrofa uncoupling protein 3 mRNA, nuclear gene encoding mitochondrial protein, complete cds"  
 AF132037.1 "AF132037 Sus scrofa natural resistance-associated macrophage protein (NRAMP1) mRNA, complete cds"  
 AF132038.1 "AF132038 Sus scrofa beta-defensin 1 precursor (BD-1) gene, complete cds"  
 AF132496.2 "AF132496 Sus scrofa lung surfactant protein D precursor (SFTPD) mRNA, complete cds"  
 AF132737.1 "AF132737 Sus scrofa protein kinase inhibitor alpha mRNA, complete cds"  
 AF134151.1 "AF134151 Sus scrofa follitropin beta subunit precursor (FSH-beta) mRNA, complete cds"  
 AF134195.1 "AF134195 Sus scrofa ubiquitin-specific protease (UBP) mRNA, complete cds"  
 AF135122.1 "AF135122 Sus scrofa signal transducer and activator of transcription 5a (Stat5a) mRNA, complete cds"  
 AF135123.1 "AF135123 Sus scrofa signal transducer and activator of transcription 5b (Stat5b) mRNA, complete cds"  
 AF136188.1 "AF136188 Sus scrofa desmin (DES) mRNA, complete cds"  
 AF136541.1 "AF136541 Sus scrofa haplotype EWB1 cytochrome b (cyt b) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AF136542.1 "AF136542 Sus scrofa haplotype EWB2 cytochrome b (cyt b) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AF136543.1 "AF136543 Sus scrofa haplotype Ma cytochrome b (cyt b) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AF136545.1 "AF136545 Sus scrofa haplotype H2 cytochrome b (cyt b) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AF136547.1 "AF136547 Sus scrofa haplotype L2 cytochrome b (cyt b) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AF136548.1 "AF136548 Sus scrofa haplotype LW2 cytochrome b (cyt b) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AF136549.1 "AF136549 Sus scrofa haplotype EWB3 cytochrome b (cyt b) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AF136550.1 "AF136550 Sus scrofa haplotype AWB10 cytochrome b (cyt b) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AF136551.1 "AF136551 Sus scrofa haplotype AWB11 cytochrome b (cyt b) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AF136552.1 "AF136552 Sus scrofa haplotype LW1 cytochrome b (cyt b) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AF136553.1 "AF136553 Sus scrofa haplotype Me cytochrome b (cyt b) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AF136895.1 "AF136895 Sus scrofa alpha-1,2-fucosyltransferase (FUT2) mRNA, complete cds"  
 AF136896.1 "AF136896 Sus scrofa alpha-1,2-fucosyltransferase (FUT1) mRNA, complete cds"  
 AF137373.1 "AF137373 Sus scrofa secreted folate binding protein mRNA, complete cds"

AF137374.1 Sus scrofa membrane-bound folate binding protein mRNA, complete cds"  
 AF139178.1 Sus scrofa heat shock protein 70.2 gene, promoter and partial cds"  
 AF140270.1 Sus scrofa decorin mRNA, complete cds"  
 AF146043.1 Sus scrofa RACK1 (RACK1) gene, complete cds"  
 AF146398.2 Sus scrofa FabG-like protein FABGL (KE6) gene, complete cds"  
 AF147881.1 Sus scrofa IL-6 receptor alpha chain (IL-6Ralpha) mRNA, complete cds"  
 AF148221.1 Sus scrofa Fc epsilon receptor gamma chain mRNA, complete cds"  
 AF148567.1 Sus scrofa pancreatic colipase mRNA, complete cds"  
 AF148955.1 Sus scrofa lens-specific calpain Lp82 mRNA, complete cds"  
 AF152021.1 Sus scrofa immunoreceptor DAP12 mRNA, complete cds"  
 AF153830.1 Sus scrofa CD3 zeta chain mRNA, complete cds"  
 AF154933.2 Sus scrofa complement component C3 (C3) mRNA, complete cds"  
 AF156712.1 Sus scrofa intercellular adhesion molecule-1 precursor (ICAM-1) mRNA, complete cds"  
 AF156929.1 Sus scrofa inflammatory response protein 6 mRNA, complete cds"  
 AF161582.1 Sus scrofa cyclic nucleotide phosphodiesterase PDE3A mRNA, complete cds"  
 AF161717.1 Sus scrofa androgen receptor AR mRNA, complete cds"  
 AF162274.1 Sus scrofa complement C7 mRNA, complete cds"  
 AF163766.1 Sus scrofa P-selectin precursor, mRNA, complete cds"  
 AF163971.1 Sus scrofa L-kynurenine 3-monoxygenase Fpk mRNA, complete cds"  
 AF164141.2 Sus scrofa uropalakin II mRNA, complete cds; nuclear gene for mitochondrial product"  
 AF164576.1 Sus scrofa mannose-binding lectin mRNA, complete cds"  
 AF164957.2 Sus scrofa estrogen receptor beta mRNA, complete cds"  
 AF165172.1 Sus scrofa vinculin mRNA, complete cds"  
 AF169635.1 Sus scrofa Niemann-Pick C disease protein (NPC1) mRNA, complete cds"  
 AF170526.1 Sus scrofa glycoprotein IIb (GPIIb) mRNA, complete cds"  
 AF170527.1 Sus scrofa glycoprotein IIIa (GPIIIa) mRNA, complete cds"  
 AF176949.1 Sus scrofa interleukin-18 mRNA, complete cds"  
 AF177762.2 Sus scrofa agouti-related protein gene, complete cds"  
 AF181119.1 Sus scrofa RNA helicase (RHIV-1) mRNA, complete cds"  
 AF181973.1 Sus scrofa NADH/NADPH thyroid oxidase p138-tox mRNA, complete cds"  
 AF188490.1 Sus scrofa galanin-like peptide precursor, mRNA, complete cds"  
 AF188626.1 Sus scrofa 5-hydroxytryptamine 1B receptor mRNA, complete cds"  
 AF188838.3 Sus scrofa glutathione S-transferase omega mRNA, complete cds"  
 AF191088.1 Sus scrofa IL-18 (IL-18) mRNA, complete cds"  
 AF191307.1 Sus scrofa protein C mRNA, complete cds"  
 AF191308.1 Sus scrofa coagulation factor V mRNA, complete cds"  
 AF192528.1 Sus scrofa integrin beta-1 subunit (CD29) mRNA, complete cds"

AF193515.2 Sus scrofa calcineurin catalytic subunit delta isoform mRNA, complete cds"  
 AF195781.1 Sus scrofa apoptosis inhibitor survivin mRNA, complete cds"  
 AF202775.1 Sus scrofa androgen receptor mRNA, complete cds"  
 AF203442.1 Sus scrofa CD80 protein precursor (CD80) mRNA, complete cds"  
 AF204929.1 Sus scrofa thyroxine-binding globulin mRNA, complete cds"  
 AF208387.1 Sus scrofa protein kinase A anchoring protein (D-AKAP2) mRNA, complete cds"  
 AF209701.1 Bos taurus glycolipid transfer protein mRNA, complete cds"  
 AF209702.1 Sus scrofa glycolipid transfer protein mRNA, complete cds"  
 AF214520.2 Sus scrofa AMP-activated protein kinase gamma subunit (PRKAG3) mRNA, complete cds"  
 AF214521.1 Sus scrofa AMPK gamma subunit (PRKAG3) gene, complete cds"  
 AF216205.1 Sus scrofa anti-apoptotic regulator Bcl-xL (bcl-xL) mRNA, complete cds"  
 AF216651.1 Sus scrofa doublesex and mab-3 related transcription factor 1 (DMRT-1) mRNA, complete cds"  
 AF220248.1 Sus scrofa cytotoxic T lymphocyte-associated protein 4 precursor (CTLA4) mRNA, complete cds"  
 AF221508.1 Sus scrofa clone A alpha-1,3-galactosyltransferase mRNA, complete cds, alternatively spliced"  
 AF221509.1 Sus scrofa clone B alpha-1,3-galactosyltransferase mRNA, complete cds, alternatively spliced"  
 AF221510S8 Sus scrofa alpha.1,3galactosyltransferase gene, exon 9 and complete cds, alternatively spliced"  
 AF222861.1 Sus scrofa type X collagen (COL10A1) gene, complete cds"  
 AF227685S2 Sus scrofa gonadotropin-releasing hormone receptor (GNRHR) gene, exons 2, 3, and complete cds"  
 AF227955.1 Sus scrofa neuropeptide Y-family receptor Y4 gene, complete cds"  
 AF227956.1 Sus scrofa neuropeptide Y-family receptor Y6 pseudogene, complete sequence"  
 AF228059.1 Sus scrofa decay-accelerating factor CD55 mRNA, complete cds, alternatively spliced"  
 AF228060.1 Sus scrofa decay-accelerating factor CD55 mRNA, complete cds, alternatively spliced"  
 AF228061.1 Sus scrofa decay-accelerating factor CD55 mRNA, complete cds, alternatively spliced"  
 AF228697.1 Sus scrofa peroxisome proliferator activated receptor beta (PPARbeta) mRNA, complete cds"  
 AF232676.1 Sus scrofa prophet of pit-1 (Prop-1) mRNA, complete cds"  
 AF232699.2 Sus scrofa 3-beta-hydroxysteroid dehydrogenase/delta-5-delta-4 isomerase (3b-HSD) mRNA, 3b-HSD-1 allele, complete cds"""  
 AF233227.1 Sus scrofa angiopoietin 1 mRNA, complete cds"  
 AF233228.1 Sus scrofa angiopoietin 2 mRNA, complete cds"  
 AF234676.2 Sus scrofa adipose differentiation-related protein (ADRP) mRNA, complete cds"  
 AF237632.1 Sus scrofa ubiquitous tropomodulin U-Tmod mRNA, complete cds"  
 AF239700.1 Sus scrofa domestica protein carboxyl-o-methyltransferase (PCMT) mRNA, complete cds"  
 AF245504.1 Sus scrofa 25-hydroxyvitamin D3-24-hydroxylase mRNA, complete cds"  
 AF247680.1 Sus scrofa immunoreceptor DAPI2 gene, complete cds"  
 AF248545.1 Sus scrofa CD40 mRNA, complete cds"  
 AF254785.1 Sus scrofa esterase D (ESD) mRNA, complete cds"  
 AF255663.1 Sus scrofa 5-HT1F receptor mRNA, complete cds"  
 AF263609.1 Sus scrofa micromolar calcium-activated neutral protease 1 isoform B mRNA, complete cds"

AF263610.1 Sus scrofa micromolar calcium-activated neutral protease 1 isoform A mRNA, complete cds"  
 AF267736.1 " Sus scrofa estrogen receptor beta (ER beta) mRNA, complete cds"  
 AF268461.1 "AF268461 Sus scrofa voltage-dependent anion channel 1 (VDAC1) mRNA, complete cds"  
 AF268462.1 "AF268462 Sus scrofa voltage-dependent anion channel 2 (VDAC2) mRNA, complete cds"  
 AF268463.1 "AF268463 Sus scrofa voltage-dependent anion channel 3 (VDAC3) mRNA, complete cds"  
 AF270494.2 Sus scrofa CD47 antigen/integrin-associated protein (CD47/IAP) mRNA, complete cds"  
 AF272734.1 Sus scrofa pregnancy-associated glycoprotein 4 (PAG4) mRNA, complete cds"  
 AF272735.1 "AF272735 Sus scrofa pregnancy-associated glycoprotein 6 (PAG6) mRNA, complete cds"  
 AF274007.1 "AF274007 Sus scrofa beta-3-adrenergic receptor gene, complete cds"  
 AF274055.1 "AF274055 Sus scrofa outwardly rectifying chloride channel (ClC-5) mRNA, complete cds"  
 AF274305.1 " Sus scrofa erythropoietin receptor mRNA, complete cds"  
 AF277000.1 "AF277000 Sus scrofa SR-PSOX mRNA, complete cds"  
 AF277894.1 "AF277894 Sus scrofa redox enzyme thioredoxin reductase mRNA, complete cds"  
 AF281633.1 "AF281633 Sus scrofa cytotoxic T-lymphocyte-associated antigen 4 (CTLA4) mRNA, complete cds"  
 AF282270.1 Sus scrofa G protein-coupled receptor kinase 7 mRNA, complete cds"  
 AF282890.1 " Sus scrofa glycoprotein GPIIIa (CD61) mRNA, complete cds"  
 AF284349.1 "AF284349 Sus scrofa chromogranin B (CHGB) mRNA, complete cds"  
 AF285444.1 "AF285444 Sus scrofa immunoreceptor DAP10 mRNA, complete cds"  
 AF285445.1 "AF285445 Sus scrofa immunoreceptor DAP10 mRNA, complete cds"  
 AF285446.1 "AF285446 Sus scrofa immunoreceptor DAP10 gene, complete cds"  
 AF285448.1 "AF285448 Sus scrofa immunoreceptor NKG2D mRNA, complete cds"  
 AF285449.1 "AF285449 Sus scrofa myeloid DAPI2-associating lectin short form mRNA, complete cds"  
 AF285450.1 "AF285450 Sus scrofa myeloid DAPI2-associating lectin long form mRNA, complete cds"  
 AF288789.1 " Sus scrofa carnitine palmitoyltransferase I mRNA, nuclear gene encoding mitochondrial protein, complete cds"  
 AF292030.1 "AF292030 Sus scrofa cathepsin K precursor (CTSK) mRNA, complete cds"  
 AF292105.1 "AF292105 Sus scrofa uteroferrin (ACPS5) gene, complete cds"  
 AF295686.1 "AF295686 Sus scrofa growth arrest homeobox transcription factor GAX (GAX) mRNA, complete cds"  
 AF295687.1 "AF295687 Sus scrofa transcription factor GATA-6 (GATA-6) mRNA, complete cds"  
 AF295805.1 "AF295805 Sus scrofa gelatinase A (MMP-2) mRNA, complete cds"  
 AF299325.1 "AF299325 Sus scrofa allograft inflammatory factor-1 splice variant G1 mRNA, complete cds"  
 AF304200.1 "AF304200 Sus scrofa breed Chinese Meishan mitochondrion, partial genome"  
 AF304201.1 "AF304201 Sus scrofa breed Italian wild boar mitochondrion, partial genome"  
 AF304202.1 "AF304202 Sus scrofa breed Landrace mitochondrion, partial genome"  
 AF304203.1 "AF304203 Sus scrofa breed Swedish wild boar mitochondrion, partial genome"  
 AF308930.1 "AF308930 Sus scrofa preproghrelin mRNA, complete cds"  
 AF309651.1 "AF309651 Sus scrofa interleukin 6 precursor (IL-6) mRNA, complete cds"  
 AF313487.1 "AF313487 Sus scrofa truncated NKG2D isoform mRNA, complete cds, alternatively spliced"

AF313615.1 " Sus scrofa putative membrane steroid receptor mRNA, complete cds"  
 AF313616.1 " Sus scrofa putative membrane steroid receptor mRNA, complete cds"  
 AF315377.1 "AF315377 Sus scrofa pregnancy-associated glycoprotein 3 mRNA, complete cds"  
 AF316108.1 " Sus scrofa arylsulfatase A (AS-A) mRNA, complete cds"  
 AF318502.1 "AF318502 Sus scrofa vascular endothelial growth factor mRNA, complete cds"  
 AF319658.1 "AF319658 Sus scrofa platelet-activating factor acetylhydrolase Ib-alpha subunit mRNA, complete cds"  
 AF319659.1 "AF319659 Sus scrofa six transmembrane endothelial antigen of PAEC mRNA, complete cds"  
 AF319660.1 "AF319660 Sus scrofa TN3 mRNA, complete cds"  
 AF320306.1 "AF320306 Sus scrofa whey acidic protein (WAP) gene, complete cds"  
 AF320815.2 " Sus scrofa high-affinity copper uptake protein (CTR1) mRNA, complete cds"  
 AF322917.1 "AF322917 Sus scrofa N-acetylgalactosamine-6-sulfatase precursor, mRNA, complete cds"  
 AF324155.1 "AF324155 Sus scrofa corticosteroid binding globulin precursor mRNA, complete cds"  
 AF326520.1 "AF326520 Sus scrofa melanocortin 1 receptor (MC1R) gene, complete cds"  
 AF327368.1 "AF327368 Sus scrofa interferon regulatory factor 6 (IRF6) mRNA, complete cds"  
 AF330213.1 " Sus scrofa interleukin-12 receptor beta 2 mRNA, complete cds"  
 AF332578.1 "AF332578 Sus scrofa dentin sialoprotein DSP mRNA, complete cds"  
 AF332698.1 " Sus scrofa CD47 antigen/integrin-associated protein (CD47/IAP) mRNA, complete cds"  
 AF336151.1 "AF336151 Sus scrofa epidermal growth factor precursor (EGF) mRNA, complete cds"  
 AF338249.1 "AF338249 Sus scrofa thyroid-stimulating hormone receptor mRNA, complete cds"  
 AF338250.1 "AF338250 Sus scrofa thyroid-stimulating hormone receptor variant mRNA, complete cds, alternatively spliced"  
 AF345986.1 "AF345986 Sus scrofa FATE mRNA, complete cds"  
 AF348326.1 "AF348326 Sus scrofa X,K-ATPase beta-m subunit (ATP1B4) mRNA, alternatively spliced product A, complete"  
 AF348327.2 "AF348327 Sus scrofa X,K-ATPase beta-m subunit (ATP1B4) mRNA, alternatively spliced product B, complete"  
 AF350447.1 " Sus scrofa myocilin mRNA, complete cds"  
 AF350911.2 "AF350911 Sus scrofa vanin-1 mRNA, complete cds"  
 AF351608.1 " Sus scrofa CRY (CRY) mRNA, complete cds"  
 AF363284.1 "AF363284 Sus scrofa muscle-specific intermediate filament desmin mRNA, complete cds"  
 AF364605.1 " Sus scrofa T-plasminogen activator mRNA, complete cds"  
 AF371322.1 "AF371322 Sus scrofa BAALC isoform 1-6-8 (BAALC) mRNA, complete cds"  
 AF371326.1 "AF371326 Sus scrofa BAALC isoform 1-8 (BAALC) mRNA, complete cds"  
 AF372453.1 "AF372453 Sus scrofa FcgammaRIII a.1 mRNA, complete cds, alternatively spliced"  
 AF372454.1 "AF372454 Sus scrofa FcgammaRIII a.2 mRNA, complete cds, alternatively spliced"  
 AF372455.1 "AF372455 Sus scrofa FcgammaRIII a.3 mRNA, complete cds, alternatively spliced"  
 AF374414.1 " Sus scrofa hydroxysteroid 11-beta dehydrogenase 2 mRNA, complete cds"  
 AF380118.1 "AF380118 Sus scrofa selenoprotein W (SEPW) mRNA, complete cds"  
 AF382821.1 " Sus scrofa thioredoxin mRNA, complete cds"  
 AF384031.1 "AF384031 Sus scrofa cytochrome P450 4A (Cyp4A) mRNA, complete cds"

AF384216.1 Sus scrofa CECR1 (CECR1) mRNA, complete cds"  
 AF385625.1 Sus scrofa interleukin-13 gene, complete cds"  
 AF385626.2 Sus scrofa interleukin-13 mRNA, complete cds"  
 AF389855.1 Sus scrofa estrogen sulfotransferase mRNA, complete cds"  
 AF397407.1 Sus scrofa Fas ligand mRNA, complete cds"  
 AF401311.1 Sus scrofa myo-inositol oxygenase (MIOX) mRNA, complete cds"  
 AF413207.1 Sus scrofa CD97 antigen mRNA, complete cds"  
 AF414124.1 Sus scrofa 11-beta hydroxysteroid dehydrogenase isoform 1 mRNA, complete cds"  
 AF416763.1 Sus scrofa transferrin receptor (TFRC) mRNA, complete cds"  
 AF419317.1 Sus scrofa calcitonin receptor-like receptor mRNA, complete cds"  
 AF420595.1 Sus scrofa serotonin 5-hydroxytryptamine 7-a receptor mRNA, complete cds"  
 AF424780.1 Sus scrofa cytochrome P450 3A (CYP3A) mRNA, complete cds"  
 AF432128.1 Sus scrofa bone morphogenetic protein receptor type IB (BMPRI-B) mRNA, complete cds"  
 AF436777.2 Sus scrofa cytoplasmic light-chain dynein mRNA, complete cds"  
 AF436848.1 Sus scrofa odorant binding protein mRNA, complete cds"  
 AF440229.1 Sus scrofa corticotropin releasing hormone gene, exon 2 and complete cds"  
 AF440259.1 Sus scrofa L-gulonono-gamma-lactone oxidase precursor (GULO) mRNA, GULO-OD allele, complete cds"  
 AF445316.1 Penaeus monodon serum albumin precursor-like protein mRNA, complete cds"  
 AF450083.1 Sus scrofa melanocortin 2 receptor (MC2R) gene, complete cds"  
 AF452448.1 Sus scrofa beta-2-microglobulin protein (B2M) gene, exons 1 through 4 and complete cds"  
 AF455811.1 Sus scrofa CD80 (CD80) mRNA, complete cds"  
 AF461503.1 Sus scrofa CD34 antigen mRNA, complete cds"  
 AF461808.1 Sus scrofa transforming growth factor beta 1 (TGFB1) mRNA, complete cds"  
 AF464002.1 Sus scrofa MHC class I antigen (SLA-I) mRNA, SLA-I\*wxd allele, complete cds"  
 AF464003.1 Sus scrofa MHC class I antigen (SLA-B) mRNA, SLA-B\*z allele, complete cds"  
 AF464004.1 Sus scrofa MHC class I antigen (SLA-B) mRNA, SLA-B\*x allele, complete cds"  
 AF464005.1 Sus scrofa MHC class I antigen (SLA-B) mRNA, SLA-B\*y allele, complete cds"  
 AF464006.1 Sus scrofa MHC class I antigen (SLA-6) mRNA, SLA-6\*z allele, complete cds"  
 AF464007.1 Sus scrofa MHC class I antigen (SLA-6) mRNA, SLA-6\*y allele, complete cds"  
 AF464008.1 Sus scrofa MHC class I antigen (SLA-6) mRNA, SLA-6\*x allele, complete cds"  
 AF464009.1 Sus scrofa MHC class I antigen (SLA-3) mRNA, SLA-3\*z allele, complete cds"  
 AF464010.1 Sus scrofa MHC class I antigen (SLA-3) mRNA, SLA-3\*y allele, complete cds"  
 AF464011.1 Sus scrofa MHC class I antigen (SLA-3) mRNA, SLA-3\*xd allele, complete cds"  
 AF464012.1 Sus scrofa MHC class I antigen (SLA-3) mRNA, SLA-3\*w allele, complete cds"  
 AF464013.1 Sus scrofa MHC class I antigen (SLA-1) mRNA, SLA-1\*z allele, complete cds"  
 AF464015.1 Sus scrofa MHC class I antigen (SLA-1) mRNA, SLA-1\*y allele, complete cds"  
 AF464019.1 Sus scrofa MHC class I antigen (SLA-6) mRNA, SLA-6\*a allele, complete cds"

AF464020.1 " Sus scrofa MHC class I antigen (SLA-6) mRNA, SLA-6\*d allele, complete cds"  
 AF464023.1 " Sus scrofa MHC class I antigen (SLA-B) mRNA, SLA-B\*d allele, complete cds"  
 AF464024.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*ax allele, complete cds"  
 AF464025.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*c allele, complete cds"  
 AF464026.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*d allele, complete cds"  
 AF464027.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*w allele, complete cds"  
 AF464028.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*ax allele, complete cds"  
 AF464029.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*y allele, complete cds"  
 AF464030.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*z allele, complete cds"  
 AF464032.1 " Sus scrofa MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*wx allele, complete cds"  
 AF464033.2 " Sus scrofa MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*y allele, complete cds"  
 AF464034.1 " Sus scrofa MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*z allele, complete cds"  
 AF464036.1 " Sus scrofa MHC class I antigen (SLA-I) mRNA, SLA-I\*mel10 allele, complete cds"  
 AF464038.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*verb3 allele, complete cds"  
 AF464039.1 " Sus scrofa MHC class I antigen (SLA-B) mRNA, SLA-B\*mel1 allele, complete cds"  
 AF464040.1 " Sus scrofa MHC class I antigen (SLA-3) mRNA, SLA-3\*mel19 allele, complete cds"  
 AF464041.1 " Sus scrofa MHC class I antigen (SLA-3) mRNA, SLA-3\*mel14 allele, complete cds"  
 AF464042.1 " Sus scrofa MHC class I antigen (SLA-3) mRNA, SLA-3\*mel13 allele, complete cds"  
 AF464043.1 " Sus scrofa MHC class I antigen (SLA-1) mRNA, SLA-1\*mel8 allele, complete cds"  
 AF464045.1 " Sus scrofa MHC class I antigen (SLA-1) mRNA, SLA-1\*mel6 allele, complete cds"  
 AF464047.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*mel2 allele, complete cds"  
 AF464049.1 " Sus scrofa MHC class I antigen (SLA-B) mRNA, SLA-B\*m allele, complete cds"  
 AF464050.1 " Sus scrofa MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*m allele, complete cds"  
 AF464051.1 " Sus scrofa MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*n allele, complete cds"  
 AF464058.1 " Sus scrofa MHC class I antigen (SLA-B) mRNA, SLA-B\*o allele, complete cds"  
 AF464059.1 " Sus scrofa MHC class I antigen (SLA-B) mRNA, SLA-B\*n allele, complete cds"  
 AF464060.1 " Sus scrofa MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*t allele, complete cds"  
 AF464061.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*t allele, complete cds"  
 AF466765.1 " Sus scrofa B cell surface marker CD19 mRNA, complete cds"  
 AF467889.1 " Sus scrofa high density lipoprotein receptor SR-BI mRNA, complete cds"  
 AF469469.1 " Sus scrofa histone H3.3A mRNA, complete cds"  
 AF469666.1 " Sus scrofa CD58 antigen (CD58) mRNA, complete cds"  
 AF477386.1 " AF477386S1 Sus scrofa leptin gene, exon 2"  
 AF477387.1 " AF477386S2 Sus scrofa leptin gene, exon 3 and complete cds"  
 AF484233.1 " Sus scrofa type II membrane protein CD69 mRNA, complete cds"  
 AF484234.1 " Sus scrofa type II membrane protein CD69 splice variant mRNA, complete cds, alternatively spliced"  
 AF490410.1 " Sus scrofa cytochrome P450 21-hydroxylase gene, complete cds"

AF492467.1 " Sus scrofa haptoglobin alpha 1S (Hp) mRNA, complete cds"  
 AF492682.1 " Sus scrofa odd homeobox 1 protein (Ob1) mRNA, complete cds"  
 AF493991.1 " Sus scrofa interleukin-4 precursor (IL-4) mRNA, complete cds"  
 AF493992.1 " Sus scrofa interleukin-6 precursor, mRNA, complete cds"  
 AF493993.1 " Sus scrofa gamma interferon precursor, mRNA, complete cds"  
 AF498759.1 " Sus scrofa phospholipase C delta 4 mRNA, complete cds"  
 AF509585.1 " Sus scrofa sialoadhesin (Siglec-1) mRNA, complete cds"  
 AF512512.1 " Sus scrofa skinkine mRNA, complete cds"  
 AF513016.1 " Sus scrofa myosin regulatory light chain ventricular isoform (MLC-2V) mRNA, complete cds"  
 AF513722.1 " Sus scrofa optineurin (OPTN) mRNA, complete cds"  
 AF516143.1 " Sus scrofa antimicrobial peptide hepcidin (HAMP) mRNA, complete cds"  
 AF516144.1 " Sus scrofa liver-expressed antimicrobial protein 2 mRNA, complete cds"  
 AF517770.1 " Sus scrofa alpha-fetoprotein precursor, mRNA, complete cds"  
 AF518322.1 " Sus scrofa IL-6 mRNA, complete cds"  
 AF521309.1 " Sus scrofa mu opioid receptor mRNA, complete cds"  
 AF523268.1 " Sus scrofa osteoclast stimulating factor mRNA, complete cds"  
 AF525029.1 " Sus scrofa transmembrane protein CD9 (CD9) mRNA, complete cds"  
 AF525316.1 " Sus scrofa matrix Gla protein mRNA, complete cds"  
 AF525403.1 " Sus scrofa FcR beta chain mRNA, complete cds"  
 AF526879.1 " Sus scrofa quinoid dihydropteridine reductase mRNA, complete cds"  
 AF527990.1 " Sus scrofa proteasome activator 28 alpha subunit (PSME1) mRNA, complete cds"  
 AF527991.1 " Sus scrofa proteasome activator 28 beta subunit (PSME2) mRNA, complete cds"  
 AF532927.1 " Sus scrofa cytosolic glutathione peroxidase (GPX1) mRNA, complete cds"  
 AF540788.1 " Sus scrofa bradykinin receptor B1 gene, complete cds"  
 AF541955.1 " Sus scrofa peptidoglycan recognition protein L isoform A mRNA, complete cds"  
 AF541956.1 " Sus scrofa peptidoglycan recognition protein L isoform B mRNA, complete cds"  
 AF541957.1 " Sus scrofa peptidoglycan recognition protein S isoform mRNA, complete cds"  
 AF547266.1 " Sus scrofa dual oxidase 1 (Duox1) mRNA, complete cds"  
 AF547267.1 " Sus scrofa dual oxidase 2 (Duox2) mRNA, complete cds"  
 AF548542.1 " Sus scrofa syndecan 4 (Sdc4) mRNA, complete cds"  
 AH005899.1 "SEG\_SSCYPVII Sus scrofa cholesterol 7alpha-hydroxylase (cyp7), complete cds"  
 AH006581.2 "SEG\_SSIGFBPII Sus scrofa IGF binding protein-2 (IGFBP-2) gene, complete cds"  
 AH009128.1 "SEG\_AF227685S Sus scrofa gonadotropin-releasing hormone receptor (GNRHR) gene, complete cds"  
 AH010595.1 "SEG\_AF221510S Sus scrofa alpha,3galactosyltransferase gene, complete cds"  
 AH011524.1 "SEG\_AF477386S Sus scrofa leptin gene, complete cds"  
 AH011633.1 "SEG\_AF460979S Sus scrofa platelet-activating factor receptor (PAFr) gene, complete cds; alternatively spliced"  
 AH012045.1 "SEG\_AY141203S Sus scrofa solute carrier family 31 member 1 (SLC31A1) gene, complete cds"



AH012830.1 "SEG\_AY283025S Sus scrofa breed Meishan bone morphogenetic protein 15 (BMP15) gene, complete cds"  
 AH012831.1 "SEG\_AY283024S Sus scrofa breed Large White bone morphogenetic protein 15 (BMP15) gene, complete cds"  
 AH012836.1 "SEG\_AY231133S Sus scrofa cell cycle progression 2 protein (CPR2) gene, complete cds"  
 AH012837.1 "SEG\_AY236153S Sus scrofa receptor activity modifying protein 3 (RAMP3) gene, complete cds"  
 AJ001201.1 "SSJ001201 Sus scrofa, Prostaglandin EP3 receptor, complete cds"  
 AJ002189.1 SSJ002189 Sus scrofa complete mitochondrial DNA  
 AJ005987.1 SSA005987 Sus scrofa alpha-endosulfine (complete coding sequence)  
 AJ271330.1 SSC271330 Sus scrofa mRNA for acylneuraminase lyase (npl gene)  
 AJ310378.1 SSC310378 Sus scrofa partial hsp70.2 gene for heat shock protein 70.2  
 AY013261.1 " Sus scrofa Rh type B glycoprotein (RhBG) mRNA, complete cds"  
 AY028310.1 " Sus scrofa amphiregulin long form precursor, mRNA, complete cds"  
 AY028311.1 " Sus scrofa amphiregulin short form precursor, mRNA, complete cds"  
 AY028583.1 " Sus scrofa prostaglandin G/H synthase-2 (PGHS-2) mRNA, complete cds"  
 AY028942.1 " Sus scrofa preprohrelin des14Q mRNA, complete cds"  
 AY033634.1 " Sus scrofa Fas ligand (FasL) mRNA, complete cds"  
 AY033825.2 " Sus scrofa fibroblast growth factor 9 (fgf9) mRNA, complete cds"  
 AY035847.1 " Sus scrofa clone TP23 basic proline-rich protein mRNA, complete cds"  
 AY035848.1 " Sus scrofa clone D2A basic proline-rich protein mRNA, complete cds"  
 AY035849.1 " Sus scrofa clone SL44-1 basic proline-rich protein mRNA, complete cds"  
 AY038049.1 " Sus scrofa calcium activated potassium channel SK3 (KCNN3) mRNA, complete cds"  
 AY039112.1 " Sus scrofa arginase I mRNA, complete cds"  
 AY040774.1 " Sus scrofa histidine triad protein member 5 mRNA, complete cds"  
 AY043485.1 " Sus scrofa prostaglandin F2-alpha receptor mRNA, complete cds"  
 AY044189.1 " Sus scrofa uropalakin II gene, complete cds"  
 AY044828.1 " Sus scrofa tyrosine hydroxylase gene, partial cds; and preproinsulin (INS) and insulin-like-growth factor 2 preproprotein (IGF2) genes, complete cds, alternatively spliced"  
 AY059415.3 " Sus scrofa nexin-1 (PN-1) mRNA, complete cds"  
 AY062036.1 " Sus scrofa intermediate-conductance calcium-activated potassium channel (KCNN4) mRNA, complete cds"  
 AY065994.1 " Sus scrofa bone morphogenetic protein type 1 receptor mRNA, complete cds"  
 AY072784.1 " Sus scrofa translationally controlled tumor protein (TCTP) mRNA, complete cds"  
 AY072785.1 " Sus scrofa CD9 antigen (CD9) mRNA, complete cds"  
 AY075024.1 " Sus scrofa carbonic anhydrase-related XI protein mRNA, complete cds"  
 AY077683.1 " Sus scrofa opticin (OPTC) mRNA, complete cds"  
 AY079212.1 " Sus scrofa KCNE3 mRNA, complete cds"  
 AY081951.1 " Sus scrofa tripartite motif protein 50 (TRIM50) mRNA, complete cds"  
 AY082015.1 " Sus scrofa thyroid stimulating hormone receptor (TSHR) mRNA, complete cds"  
 AY084053.1 " Sus scrofa MHC class II transactivator CIITA mRNA, complete cds"

AY091587.1 " Sus scrofa blue-sensitive visual pigment opsin mRNA, complete cds"  
 AY093657.1 " Sus scrofa diacylglycerol acyltransferase (DGAT) mRNA, complete cds"  
 AY094061.1 " Sus scrofa forkhead/winged helix transcription factor FOXO1a (foxo1a) mRNA, complete cds"  
 AY094603.1 " Sus scrofa bifunctional phosphopantetheine adenylyl transferase / dephospho CoA kinase (PPAT/DPCK) mRNA, complete cds""""  
 AY095535.1 " Sus scrofa L-threonine 3-dehydrogenase (TDH) mRNA, complete cds"  
 AY095536.2 " Sus scrofa P protein mRNA, complete cds"  
 AY102467.1 " Sus scrofa MHC class I antigen (SLA-PI) mRNA, SLA-PI\*gx allele, complete cds"  
 AY102468.1 " Sus scrofa MHC class I antigen (SLA-PI) mRNA, SLA-PI\*gz allele, complete cds"  
 AY102469.1 " Sus scrofa MHC class I antigen (SLA-PI) mRNA, SLA-PI\*yn allele, complete cds"  
 AY102470.1 " Sus scrofa MHC class I antigen (SLA-PI4) mRNA, SLA-PI4\*gx allele, complete cds"  
 AY102471.1 " Sus scrofa MHC class I antigen (SLA-PI4) mRNA, SLA-PI4\*gz allele, complete cds"  
 AY102472.1 " Sus scrofa MHC class I antigen (SLA-PI4) mRNA, SLA-PI4\*yn allele, complete cds"  
 AY102473.1 " Sus scrofa MHC class II antigen (SLA-DQA) mRNA, SLA-DQA\*gx allele, complete cds"  
 AY102474.1 " Sus scrofa MHC class II antigen (SLA-DQA) mRNA, SLA-DQA\*gz allele, complete cds"  
 AY102475.1 " Sus scrofa MHC class II antigen (SLA-DQA) mRNA, SLA-DQA\*yn allele, complete cds"  
 AY102476.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*gx allele, complete cds"  
 AY102477.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*gz allele, complete cds"  
 AY102478.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*yn allele, complete cds"  
 AY102479.1 " Sus scrofa MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*gx allele, complete cds"  
 AY102481.1 " Sus scrofa MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*yn allele, complete cds"  
 AY112657.1 " Sus scrofa fibrinogen-like protein 2 (FGL2) gene, complete cds"  
 AY115491.1 " Sus scrofa transcription factor GATA-4 mRNA, complete cds"  
 AY116504.1 " Sus scrofa granulocyte-macrophage colony-stimulating factor (GM-CSF) mRNA, complete cds"  
 AY116585.1 " Sus scrofa inhibin beta B precursor subunit (INHBB) gene, exons 1 and 2, complete cds"  
 AY116586.1 " Sus scrofa diacylglycerol acyltransferase (DGAT1) gene, complete cds"  
 AY117054.1 " Sus scrofa epidermal growth factor receptor mRNA, complete cds"  
 AY122324.1 " Sus scrofa ubiquitous PKC-potentiated PPI inhibitor (PHI-1) mRNA, complete cds"  
 AY126721.1 " Sus scrofa MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*n allele, complete cds"  
 AY134475.1 " Sus scrofa PERV-A receptor mRNA, complete cds"  
 AY134854.1 " Sus scrofa proteasome activator subunit 3 (PSME3) mRNA, complete cds"  
 AY135568.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*w allele, complete cds"  
 AY135569.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*ax allele, complete cds"  
 AY135571.1 " Sus scrofa MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*t allele, complete cds"  
 AY135572.1 " Sus scrofa clone I19904 MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*t allele, complete cds"  
 AY135574.1 " Sus scrofa clone 370570 MHC class II antigen (SLA-DQB) mRNA, SLA-DQB\*113C3 allele, complete cds"  
 AY135575.1 " Sus scrofa MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*m allele, complete cds"  
 AY135578.1 " Sus scrofa clone SSC16A03 MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*C16A03 allele, complete cds"

AY135579.1 " Sus scrofa clone 137541 MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*73I3 allele, complete cds"  
 AY135581.1 " Sus scrofa clone 137957 MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*65N19 allele, complete cds"  
 AY135582.1 " Sus scrofa MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*a-1 allele, complete cds"  
 AY135583.1 " Sus scrofa MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*a-2 allele, complete cds"  
 AY135584.1 " Sus scrofa MHC class II antigen (SLA-DRB) mRNA, SLA-DRB\*t allele, complete cds"  
 AY135587.1 " Sus scrofa clone SSC25E08 MHC class I antigen (SLA-1) mRNA, SLA-1\*C25E08 allele, complete cds"  
 AY135591.1 " Sus scrofa MHC class I antigen (SLA-1) mRNA, SLA-1\*mel11 allele, complete cds"  
 AY135592.1 " Sus scrofa MHC class I antigen (SLA-1) mRNA, SLA-1\*a allele, complete cds"  
 AY135594.1 " Sus scrofa MHC class I antigen (SLA-1) mRNA, SLA-1\*meI9 allele, complete cds"  
 AY135595.1 " Sus scrofa MHC class I antigen (SLA-1) mRNA, SLA-1\*V472 allele, complete cds"  
 AY135598.1 " Sus scrofa MHC class I antigen (SLA-B) mRNA, SLA-B\*u allele, complete cds"  
 AY135599.1 " Sus scrofa MHC class I antigen (SLA-B) mRNA, SLA-B\*mel20 allele, complete cds"  
 AY135600.1 " Sus scrofa MHC class I antigen (SLA-1) mRNA, SLA-1\*mel6 allele, complete cds"  
 AY135602.1 " Sus scrofa MHC class I antigen (SLA-3) mRNA, SLA-3\*xd allele, complete cds"  
 AY135635.1 " Sus scrofa neonatal Fc receptor FcRn mRNA, complete cds"  
 AY139185.1 " Sus scrofa domestica 18 kDa antrum mucosa protein (Amp18) mRNA, complete cds"  
 AY141204.1 " AY141203S2 Sus scrofa solute carrier family 31 member 1 (SLC31A1) gene, exon 4 and complete cds"  
 AY177149.1 " Sus scrofa Von Ebner gland protein mRNA, complete cds"  
 AY180903.1 " Sus scrofa peptide transporter 1 mRNA, complete cds"  
 AY181062.1 " Sus scrofa skeletal muscle piglet carnitine palmitoyltransferase 1B (CPT1B) mRNA, complete cds; nuclear gene for mitochondrial product"  
 AY188088.1 " Sus scrofa cyclic nucleotide phosphodiesterase (PDE3A) mRNA, complete cds"  
 AY188090.1 " Sus scrofa interferon gamma mRNA, complete cds"  
 AY188501.1 " Sus scrofa peroxisome proliferator-activated receptor delta (PPARd) mRNA, complete cds"  
 AY188554.1 " Sus scrofa pregnancy-associated glycoprotein 5 (PAG5) mRNA, complete cds"  
 AY191819.1 " Sus scrofa Ly49 (Ly49) mRNA, complete cds"  
 AY193782.1 " Sus scrofa parathyroid hormone-like hormone mRNA, complete cds"  
 AY198323.1 " Sus scrofa dipeptidyl peptidase IV (DPPIV) mRNA, complete cds"  
 AY204219.1 " Sus scrofa neonatal Fc receptor mRNA, complete cds"  
 AY217034.1 " Sus scrofa microsomal triglyceride transfer protein large subunit (MTP) mRNA, complete cds"  
 AY225510.1 " Sus scrofa pyruvate carboxylase mRNA, complete cds"  
 AY231143.1 " AY231133S11 Sus scrofa cell cycle progression 2 protein (CPR2) gene, exon and complete cds"  
 AY234859.1 " Sus scrofa HCBP6-like protein mRNA, complete cds"  
 AY236155.1 " AY236153S3 Sus scrofa receptor activity modifying protein 3 (RAMP3) gene, exon 3 and complete cds"  
 AY236156.1 " Sus scrofa receptor activity modifying protein 3 (RAMP3) mRNA, complete cds"  
 AY237484.1 " Sus scrofa isolate IB1 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AY237486.1 " Sus scrofa isolate IB3 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AY237487.1 " Sus scrofa isolate IB4 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product"

AY237492.1 " Sus scrofa isolate IB9 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AY237498.1 " Sus scrofa isolate IB15 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AY237506.1 " Sus scrofa isolate IB23 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AY237510.1 " Sus scrofa isolate SWB1 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AY237515.1 " Sus scrofa isolate SWB6 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AY237516.1 " Sus scrofa isolate SWB7 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AY237524.1 " Sus scrofa isolate LW1 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AY237525.1 " Sus scrofa isolate LW2 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AY237530.1 " Sus scrofa isolate MS1 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product"  
 AY238476.1 " Sus scrofa organic cation transporter 1 (OCT1) mRNA, complete cds"  
 AY242124.1 " Sus scrofa proglucagon mRNA, complete cds"  
 AY243100.1 " Sus scrofa breed Taihu MHC class II antigen (SLA-DQA) mRNA, complete cds"  
 AY243101.1 " Sus scrofa breed Taihu MHC class II antigen (SLA-DQB) mRNA, complete cds"  
 AY243102.1 " Sus scrofa breed Taihu MHC class II antigen (SLA-DRB) mRNA, complete cds"  
 AY243103.1 " Sus scrofa breed Taihu MHC class II antigen (SLA-DRB) mRNA, complete cds"  
 AY243104.1 " Sus scrofa breed Wuzhishan MHC class II antigen (SLA-DQA) mRNA, complete cds"  
 AY243106.1 " Sus scrofa breed Wuzhishan MHC class II antigen (SLA-DRB) mRNA, complete cds"  
 AY243107.1 " Sus scrofa breed Wuzhishan MHC class II antigen (SLA-DRB) mRNA, complete cds"  
 AY245888.1 " Sus scrofa Smad1 (MADH1) mRNA, complete cds"  
 AY247739.1 " Sus scrofa rho GTPase mRNA, complete cds; nuclear gene for mitochondrial product"  
 AY247764.1 " Sus scrofa MHC class I antigen (SLA-1) mRNA, SLA-1\*We1 allele, complete cds"  
 AY247765.1 " Sus scrofa MHC class I antigen (SLA-1) mRNA, SLA-1\*We2 allele, complete cds"  
 AY247766.1 " Sus scrofa MHC class I antigen (SLA-1) mRNA, SLA-1\*LW1 allele, complete cds"  
 AY247767.1 " Sus scrofa MHC class I antigen (SLA-1) mRNA, SLA-1\*LW2 allele, complete cds"  
 AY247768.1 " Sus scrofa MHC class I antigen (SLA-3) mRNA, SLA-3\*We1 allele, complete cds"  
 AY247769.1 " Sus scrofa MHC class I antigen (SLA-3) mRNA, SLA-3\*LW1 allele, complete cds"  
 AY247770.1 " Sus scrofa MHC class I antigen (SLA-3) mRNA, SLA-3\*LW2 allele, complete cds"  
 AY247771.1 " Sus scrofa MHC class I antigen (SLA-6) mRNA, SLA-6\*We1 allele, complete cds"  
 AY247772.1 " Sus scrofa MHC class I antigen (SLA-6) mRNA, SLA-6\*LW1 allele, complete cds"  
 AY247773.1 " Sus scrofa MHC class I antigen (SLA-2) mRNA, SLA-2\*We1 allele, complete cds"  
 AY247774.1 " Sus scrofa MHC class I antigen (SLA-2) mRNA, SLA-2\*LW1 allele, complete cds"  
 AY247775.1 " Sus scrofa MHC class I antigen (SLA-2) mRNA, SLA-2\*LW2 allele, complete cds"  
 AY247776.1 " Sus scrofa MHC class II antigen (SLA-DQA1) mRNA, SLA-DQA1\*We1 allele, complete cds"  
 AY247777.1 " Sus scrofa MHC class II antigen (SLA-DQA1) mRNA, SLA-DQA1\*LW1 allele, complete cds"  
 AY247778.1 " Sus scrofa MHC class II antigen (SLA-DQB1) mRNA, SLA-DQB1\*We1 allele, complete cds"  
 AY247779.1 " Sus scrofa MHC class II antigen (SLA-DQB1) mRNA, SLA-DQB1\*LW1 allele, complete cds"  
 AY247780.1 " Sus scrofa MHC class II antigen (SLA-DQB1) mRNA, SLA-DQB1\*LW2 allele, complete cds"

AY247781.1 " Sus scrofa MHC class II antigen (SLA-DRA1) mRNA, SLA-DRA1\*We1 allele, complete cds"  
 AY247782.1 " Sus scrofa MHC class II antigen (SLA-DRA1) mRNA, SLA-DRA1\*LW1 allele, complete cds"  
 AY247783.1 " Sus scrofa MHC class II antigen (SLA-DRA1) mRNA, SLA-DRA1\*LW2 allele, complete cds"  
 AY247784.1 " Sus scrofa MHC class II antigen (SLA-DRB1) mRNA, SLA-DRB1\*We1 allele, complete cds"  
 AY247785.1 " Sus scrofa MHC class II antigen (SLA-DRB1) mRNA, SLA-DRB1\*LW1 allele, complete cds"  
 AY248702.1 " Sus scrofa cardiac ankyrin repeat protein (CARP) mRNA, complete cds"  
 AY251012.1 " Sus scrofa transcription factor GATA-2 mRNA, complete cds"  
 AY253338.1 " Sus scrofa beta-1,3-N-acetylglucosaminyltransferase 5 (B3GNT5) mRNA, complete cds"  
 AY253340.1 " Sus scrofa UDP-Gal:beta-GlcNAc beta-1,3-galactosyltransferase 3 (B3GALT3) mRNA, complete cds"  
 AY266137.2 " Sus scrofa endothelial nitric oxide synthase mRNA, complete cds"  
 AY266142.1 " Sus scrofa interleukin 13 receptor alpha 1 mRNA, complete cds"  
 AY266143.1 " Sus scrofa interleukin 4 receptor alpha mRNA, complete cds"  
 AY266299.1 " Sus scrofa peptidyl-prolyl cis-trans isomerase A mRNA, complete cds"  
 AY267904.1 " Sus scrofa pDJA1 chaperone mRNA, complete cds"  
 AY271355.1 " Sus scrofa heat shock 10kD protein mRNA, complete cds"  
 AY271356.1 " Sus scrofa oxidative-stress responsive 1 mRNA, complete cds"  
 AY277587.1 " Sus scrofa four and a half LIM domains 3 (FHL3) mRNA, complete cds"  
 AY280866.1 " Sus scrofa coumarin 7-hydroxylase (CYP2A) mRNA, complete cds"  
 AY282922.1 " Sus scrofa troponin I (TNNI) mRNA, complete cds"  
 AY285925.1 " Sus scrofa MHC class II antigen (SLA-DQA1) mRNA, SLA-DQA1\*a allele, complete cds"  
 AY285926.1 " Sus scrofa MHC class II antigen (SLA-DRA1) mRNA, SLA-DRA1\*m16 allele, complete cds"  
 AY285927.1 " Sus scrofa MHC class II antigen (SLA-DQA1) mRNA, SLA-DQA1\*w allele, complete cds"  
 AY285929.1 " Sus scrofa MHC class II antigen (SLA-DRA1) mRNA, SLA-DRA1\*c allele, complete cds"  
 AY285930.1 " Sus scrofa MHC class II antigen (SLA-DQA1) mRNA, SLA-DQA1\*m5 allele, complete cds"  
 AY285931.1 " Sus scrofa MHC class II antigen (SLA-DQA1) mRNA, SLA-DQA1\*y allele, complete cds"  
 AY285932.1 " Sus scrofa MHC class II antigen (SLA-DQA1) mRNA, SLA-DQA1\*d allele, complete cds"  
 AY285933.1 " Sus scrofa MHC class II antigen (SLA-DRA1) mRNA, SLA-DRA1\*m17 allele, complete cds"  
 AY285934.1 " Sus scrofa MHC class II antigen (SLA-DQA1) mRNA, SLA-DQA1\*x allele, complete cds"  
 AY285935.1 " Sus scrofa MHC class II antigen (SLA-DRA1) mRNA, SLA-DRA1\*m3 allele, complete cds"  
 AY285936.1 " Sus scrofa MHC class II antigen (SLA-DRA1) mRNA, SLA-DRA1\*x allele, complete cds"  
 AY285937.1 " Sus scrofa MHC class II antigen (SLA-DRA1) mRNA, SLA-DRA1\*w allele, complete cds"  
 AY285938.1 " Sus scrofa MHC class II antigen (SLA-DRA1) mRNA, SLA-DRA1\*z allele, complete cds"  
 AY285939.1 " Sus scrofa MHC class II antigen (SLA-DRA1) mRNA, SLA-DRA1\*y allele, complete cds"  
 AY294018.1 " Sus scrofa interleukin 2 mRNA, complete cds"  
 AY294020.1 " Sus scrofa interleukin 4 mRNA, complete cds"  
 AY295073.1 " AY283024S2 Sus scrofa breed Large White bone morphogenetic protein 15 (BMP15) gene, exon 2 and complete"  
 AY295074.1 " AY283025S2 Sus scrofa breed Meishan bone morphogenetic protein 15 (BMP15) gene, exon 2 and complete cds"

AY303628.1 "Sus scrofa CD58 antigen (CD58) mRNA, complete cds"  
 AY303988.1 "Sus scrofa breed Taihu MHC class II antigen (SLA-DQA) gene, complete cds"  
 AY303989.1 "Sus scrofa breed Taihu MHC class II antigen (SLA-DQB) gene, complete cds"  
 AY303990.1 "Sus scrofa breed Taihu MHC class II antigen (SLA-DRA) gene, complete cds"  
 AY303991.1 "Sus scrofa breed Taihu MHC class II antigen (SLA-DRB) gene, complete cds"  
 AY305005.1 "Synthetic construct interleukin-18 mRNA, complete cds"  
 AY306198.1 "Sus scrofa lactoferrin precursor (PLF) mRNA, complete cds"  
 BK001358.1 "TPA: Sus scrofa spermidine/spermine N-1 acetyltransferase 2 (SSAT2) mRNA, complete cds"  
 D00160.1 "PIGELAI Sus scrofa mRNA for pancreatic preproelastase 1, complete cds"  
 D00237.1 "PIGELS2 Sus scrofa mRNA for pancreatic elastase 2 precursor, complete cds"  
 D00524.1 "PIGAAREL Sus scrofa mRNA for acylamino acid-releasing enzyme, complete cds"  
 D00579.1 "PIGLHB Sus scrofa DNA for LH beta, exons 1, 2, 3, complete cds"  
 D00621.1 "PIGFSHBS Sus scrofa gene for follicle stimulation hormone beta subunit, exons 1, 2, 3, complete cds"  
 D10621.1 "D10616S6 Sus scrofa gene for arachidonate 12-lipoxygenase, complete cds and exons 9-14"  
 D11336.1 "PIGSABP Sus scrofa mRNA for soluble angiotensin-binding protein, complete cds"  
 D13390.1 "PIGHDP Sus scrofa HPD mRNA for 4-hydroxyphenylpyruvic acid dioxygenase, complete cds"  
 D13514.1 "PIGACY1 Porcine mRNA for N-acylamino acid aminohydrolase (Aminoacylase 1), complete cds"  
 D14875.1 "PIGPAP Sus scrofa mRNA for adrenomedullin, complete cds"  
 D15071.1 "PIGFE Pig mRNA for ferritin heavy-chain, complete cds"  
 D16511.1 "PIGCARR Pig mRNA for carbonyl reductase, complete cds"  
 D17513.1 "PIGSTAR Sus scrofa mRNA for heat-stable enterotoxin receptor, complete cds"  
 D17572.1 "PIGSP38 Pig mRNA for zona-pellucida-binding protein (sp38), complete cds"  
 D17654.1 "PIGHL2C Sus scrofa HBp15/L22 mRNA for heparin binding protein, complete cds"  
 D17755.1 "D17754S2 Sus scrofa gene for SPAI-2, complete cds and exon 2"  
 D21074.1 "PIGGMCSF Sus scrofa GM-CSF mRNA for granulocyte-macrophage colony-stimulating factor, complete cds"  
 D21338.1 "PIGSSR Pig DNA for somatostatin receptor, complete cds"  
 D21871.1 "PIGTHOL Sus scrofa mRNA for thimet oligopeptidase, complete cds"  
 D28521.1 "PIG135KDAP Boar mRNA for 135kDa protein, complete cds"  
 D29655.1 "PIGUMPCMP Pig mRNA for UMP-CMP kinase, complete cds"  
 D30799.1 "PIGENPR Sus scrofa mRNA for enteropeptidase ('mini' chain, heavy chain, light chain), complete cds"  
 D31848.1 "PIGGAD65A Pig gad65 mRNA for glutamic acid decarboxylase (65kDa GAD), complete cds"  
 D31849.1 "PIGGAD67B Pig gad67 mRNA for glutamic acid decarboxylase (67kDa GAD), complete cds"  
 D37916.1 "Sus scrofa mRNA for epididymis-specific glutathione peroxidase 23kDa subunit, complete cds"  
 D37917.1 "PIGPCL Boar mRNA for porcine cathepsin L, complete cds"  
 D38754.1 "PIGIATIHCH Pig mRNA for inter-alpha-trypsin inhibitor heavy-chain H1, complete cds"  
 D45064.1 "PIGPZP2G Pig mRNA for zona pellucida 2 glycoprotein, complete cds"  
 D45065.1 "PIGPZP3G Pig mRNA for zona pellucida 3 glycoprotein, complete cds"

D49386.1 "PIGNADPDL4 Sus scrofa mRNA for NADP dependent leukotriene b4 12-hydroxydehydrogenase, complete cds"  
D50133.1 " Porcine mRNA for inward rectifying K channel, complete cds"  
D50319.1 "PIGWAPA Sus scrofa DNA for elafin, complete cds"  
D50320.1 "PIGWAPB Sus scrofa DNA for SPAI-2, complete cds"  
D50321.1 "PIGWAPC Sus scrofa DNA for elafin family member protein, complete cds"  
D50322.1 "PIGWAPD Pig mRNA for elafin family member protein, complete cds"  
D50323.1 "PIGWAPE Pig mRNA for elafin family member protein, complete cds"  
D61396.1 " Porcine mRNA for vitronectin, complete cds"  
D63145.1 "PIGVITRON Pig mRNA for vitronectin, complete cds"  
D70897.1 " Sus scrofa mRNA for membrane cofactor protein, complete cds"  
D83667.1 "DMY245 Sus scrofa mRNA for preproSPAI-2, complete cds"  
D83766.1 " Pig mRNA for N-acyl-D-glucosamine 2-epimerase, complete cds"  
D86562.1 " Pig mRNA for DAD1 gene, complete cds"  
D86723.1 " Porcine mRNA for N-acetyl-beta-D-glucosaminide alpha-1,6-fucosyltransferase, complete cds"  
D88158.1 " Pig mRNA for cytochrome b561, complete cds"  
D88385.1 " Sus scrofa mRNA for A-Raf-1, complete cds"  
D89477.1 " Porcine mRNA for short-chain acyl-CoA dehydrogenase, complete cds"  
D89478.1 " Porcine mRNA for long-chain acyl-CoA dehydrogenase, complete cds"  
D89546.1 " Porcine mRNA for pleiotrophic factor beta, complete cds"  
D89812.1 " Sus scrofa mRNA for catalase, complete cds"  
D90053.1 "PIGDESTN Sus scrofa mRNA for destrin, complete cds"  
J02792.1 "PIGRELXA Porcine relaxin gene, complete cds"  
J02895.1 "PIGHMG2 Pig non-histone chromosomal protein (HMG2) mRNA, complete cds"  
J03021.1 "PIGATA Porcine choline acetyltransferase (ChoAcTase) mRNA, complete cds"  
J03489.1 "PIGLPDH Pig lipoamide dehydrogenase mRNA, complete cds"  
J04601.1 "PIGPEPA Pig pepsinogen A mRNA, complete cds"  
J04950.1 "PIGTRYA Boar acrosin zymogen mRNA, complete cds"  
J05136.1 "PIGGASA Sus scrofa gastrotropin mRNA, complete cds"  
J05224.1 "PIGACON Pig heart aconitase mRNA, complete cds"  
J05399.1 "PIGRNBP Pig renin-binding protein (RnBP) mRNA, complete cds"  
J05652.1 "PIGA2AR Porcine alpha2A-adrenergic receptor (PORA2AR) gene, complete cds"  
K01088.1 "PIGRELX Pig relaxin mRNA, complete coding and 3' untranslated regions"  
K01940.1 "PIGCCCK Pig cholecystokinin (CCK) precursor mRNA, (complete) and 3' end"  
L00626.1 "PIGAPAI Pig apolipoprotein A-I gene, complete cds"  
L00627.1 "PIGAPCIII Pig apolipoprotein CIII gene, complete cds"  
L02900.1 "PIGSGLT2X Pig Na-dependent glucose cotransporter (pSGLT2) mRNA, complete cds"  
L06820.1 "PIGAPLPR Sus scrofa apolipoprotein R mRNA, complete cds"

L07595.1 "PIGTGFB3A Porcine transforming growth factor-beta type III receptor (TGF-beta type III receptor) mRNA, complete cds""  
L07623.1 "PIGPRPG Sus scrofa prion protein (PrP) gene, complete cds"  
L07786.1 "PIGCKIT Sus scrofa (clone pSC7) c-kit ligand mRNA, complete cds"  
L11000.1 "PIGZP3A Sus scrofa zona pellucida sperm-binding glycoprotein (ZP3-alpha) mRNA, complete cds"  
L11869.1 "PIGGHRHR Porcine growth hormone-releasing hormone receptor mRNA, complete cds"  
L12345.1 "PIGFICOLB Sus scrofa ficolin mRNA, complete cds"  
L12581.1 "PIGGBP Sus scrofa gastrin-binding protein mRNA, complete cds"  
L12743.1 PIGPHP Pig phospholipid hydroperoxide glutathione peroxidase mRNA 2 complete cdses  
L12991.1 "PIGIL4A Pig interleukin 4 mRNA, complete cds"  
L13068.1 "PIGCABIPRO Sus Scrofa calbindin D-9k mRNA, complete cds"  
L13128.1 "PIGTHSY Sus scrofa thromboxane synthase mRNA, complete cds"  
L13854.1 "PIGMICRO2B Sus scrofa beta 2-microglobulin mRNA, complete cds"  
L14282.1 "PIGPTI Pig plasmin trypsin inhibitor mRNA, complete cds"  
L14950.1 "PIGALDRED Sus scrofa aldose reductase mRNA, complete cds"  
L16507.1 "PIGFORM Sus scrofa formiminotransferase-cyclodeaminase mRNA, complete cds"  
L20001.1 "PIGINTL10A Sus scrofa interleukin 10 (IL-10) mRNA, complete cds"  
L22169.1 "PIGZP3B Pig zona pellucida glycoprotein mRNA, complete cds"  
L23825.1 "PIGPR39ABP Sus scrofa antibacterial protein precursor (PR-39) mRNA, complete cds"  
L24745.1 "PIGLAP Sus scrofa leukocyte antimicrobial peptide precursor (PG-2) mRNA, complete cds"  
L26053.1 "PIGPMAP23P Sus scrofa antibacterial protein precursor, mRNA, complete cds"  
L29125.1 "PIGMAP36A Sus scrofa antibacterial peptide precursor (PMAP-36) mRNA, complete cds"  
L29342.1 "PIGLHRHR Pig luteinizing hormone-releasing hormone receptor mRNA, complete cds"  
L31966.1 "PIGFORE Sus scrofa follitropin receptor (FSHR) mRNA, complete cds"  
L32864.1 "PIGLHRHA Sus scrofa luteinizing hormone-releasing hormone mRNA, complete mature peptide, and gonadotropin-releasing hormone associated peptide mRNA, complete mature peptide""  
L33893.1 "PIGNCPGX Sus scrofa NADPH-cytochrome P-450 oxidoreductase mRNA, complete cds"  
L34360.1 "PIGPAG1A Porcine pregnancy-associated glycoprotein (PAG1) gene, complete cds"  
L34361.1 "PIGPAG2A Porcine pregnancy-associated glycoprotein (PAG2) gene, complete cds"  
L35765.1 "PIGIL12PSU Sus scrofa interleukin-12 p35 subunit mRNA, complete cds"  
L36152.1 "PIGGGTA Sus scrofa alpha-1,3-galactosyltransferase mRNA, complete cds"  
L36535.1 "PIGAI3G Sus scrofa (clone pPGT-3) alpha 1,3-galactosyltransferase mRNA, complete cds"  
L38524.1 "PIGOCT1A Sus scrofa octamer binding protein 1 (OTF1) mRNA, complete cds"  
L38645.1 "PIGMUOPR Sus scrofa mu opioid receptor mRNA, complete cds"  
L38849.1 "PIGIRAP Sus scrofa (clone p0328w) IRAP1 mRNA, complete cds"  
L39075.1 "PIGSEL Sus scrofa P-selectin mRNA, complete cds"  
L39076.1 "PIGESELECT Sus scrofa E-selectin mRNA, complete cds"  
L39641.1 "PIGPMAP37A Sus scrofa antibacterial peptide precursor (PMAP37) mRNA, complete cds"



L41350.1 "PIGPSA Sus scrofa pulmonary surfactant-associated protein A (PSP-A) mRNA, complete cds"  
L43124.1 "PIGVCAM Sus scrofa (clone pVCAM48) vascular cell adhesion molecule (VCAM) mRNA, complete cds"  
L50534.1 "PIGFTF Pig (Sus scrofa) alpha1.2 fucosyltransferase gene, complete cds"  
L76099.1 "PIGCD86G Sus scrofa CD86 mRNA, complete cds"  
L77617.1 "PIGPSMT3A Sus scrofa MIF2 suppressor (PSMT3) mRNA, complete cds"  
L78843.1 "PIGPLTP Sus scrofa plasma phospholipid transfer protein (PLTP) mRNA, complete cds"  
M11732.1 "PIGASPAT Pig mitochondrial aspartate aminotransferase mRNA, complete cds"  
M11778.1 "PIGCALPA Pig calpain I light subunit mRNA, complete cds"  
M11779.1 "PIGCALPB Pig calpain I light subunit mRNA, complete cds"  
M13826.1 "PIPGAL Pig preprogalanin mRNA, complete cds"  
M13980.1 "PIGINHA Pig inhibin A-subunit mRNA, complete cds"  
M14433.1 "PIGMG Porcine myoglobin mRNA, complete cds"  
M16427.1 "PIGMDH Pig mitochondrial malate dehydrogenase (mMDH) mRNA, complete cds"  
M16651.1 "PIGELAPII Porcine pancreatic elastase II mRNA, complete cds"  
M16972.1 "PIGAAOA Porcine D-amino acid oxidase mRNA, complete cds"  
M17014.1 "PIGMHDR6 Swine MHC class I PD6-glycoprotein mRNA, complete cds"  
M17704.1 "PIGGH Porcine growth hormone gene, complete cds"  
M19529.1 "PIGFA Pig follistatin (FS) gene, complete cds"  
M20160.1 "PIGCALPSA Pig heart calpastatin gene, complete cds"  
M20192.1 "PIG2APHA Porcine protein phosphatase 2A alpha subunit mRNA, complete cds"  
M20193.1 "PIG2APHB Porcine protein phosphatase 2A beta subunit mRNA, complete cds"  
M20866.1 "PIGCOFIL Pig coflin mRNA, complete cds"  
M20920.1 "PIGPEP Swine pepsinogen A mRNA, complete cds"  
M21055.1 "PIGPLA2RA Pig pancreas phospholipase A-2 (PLA-2) mRNA, complete cds, clone pig-I(pcDNA)"  
M21057.1 "PIGMHCTA Pig MHC class I PD1 major transplantation antigen (SLA) gene, complete cds"  
M21058.1 "PIGMHCTAB Pig MHC class I PD14 major transplantation antigen (SLA) gene, complete cds"  
M21197.1 "PIGCITSYN Porcine citrate synthase mRNA, complete cds"  
M21683.1 "PIGHMGI Pig nonhistone protein HMG1 mRNA, complete cds"  
M22724.1 "PIGATPHK Pig (H+ + K+)-ATPase mRNA, complete cds"  
M23596.1 "PIGBNP Pig (clone pBNP84) natriuretic peptide (BNP) mRNA, complete cds"  
M23654.1 "PIGSNEP Pig secreted neuronal and endocrine protein (7B2) mRNA, complete cds"  
M23703.1 "PIGTGFB1A Sus scrofa transforming growth factor beta-1 mRNA, complete cds"  
M24088.1 "PIGCASPAT Pig (Sus scrofa) cytosolic aspartate aminotransferase (cAspAT) mRNA, complete cds"  
M25547.1 "PIGBNPA Pig brain natriuretic peptide (BNP) mRNA, complete cds"  
M25644.1 "PIGVPC Pig vasopressin mRNA, complete cds"  
M26139.1 "PIGMTBEST Pig mitochondrion ATPase 8 (3'end), ATPase 6 (complete cds), and CO III (5'end)"  
M27697.1 "PIGUOXA Pig urate oxidase mRNA, complete cds"

M28623.1 "PIGIFNA1 Porcine interferon alpha-1 gene, complete cds"  
M29515.1 "PIGMET Pig metallothionein mRNA, complete cds"  
M29525.1 "PIGLHHCGB Porcine luteinizing hormone-choriogonadotropic hormone receptor mRNA, complete cds"  
M29526.1 "PIGLHHCGB Porcine luteinizing hormone-choriogonadotropic hormone receptor mRNA, variant B, complete cds"  
M29527.1 "PIGLHHCGB Porcine luteinizing hormone-choriogonadotropic hormone receptor mRNA variant C, complete cds"  
M29528.1 "PIGLHHCGB Porcine luteinizing hormone-choriogonadotropic hormone receptor mRNA variant D, complete cds"  
M29938.1 "PIGMHDQAA Pig MHC class II SLA-DQ alpha chain mRNA (haplotype c), complete cds"  
M30143.1 "PIGVALA Pig valosin-containing protein (VCP) mRNA, complete cds"  
M30284.1 "PIGUFMR Pig uteroferrin mRNA, complete cds"  
M30315.1 "PIGUFBP Pig uteroferrin-associated protein (UFBP) mRNA, complete cds"  
M31175.1 "PIGGFIIA Pig insulin-like growth factor I (pIGF-I) mRNA, complete cds"  
M31417.1 "PIGLOX12A Pig arachidonate 12-lipoxygenase mRNA, complete cds"  
M31453.1 "PIGTTF Pig liver thioltransferase mRNA, complete cds"  
M31496.1 "PIGSECR Pig secretin mRNA, complete cds, clone 6"  
M32031.1 "PIGFMOAA Pig hepatic flavin-containing monooxygenase (FMO) mRNA, complete cds"  
M32120.1 "PIGMHSLAD Swine MHC class II SLA-DBQ-alpha antigen mRNA (haplotype c), complete cds"  
M34441.1 "PIGINVOLA Pig involucrin gene, complete cds"  
M35497.1 "PIGGASBAA Pig gastric H<sup>+</sup>/K<sup>+</sup>-ATPase beta subunit mRNA, complete cds"  
M36512.1 "PIGFSB Porcine follistatin gene, complete cds"  
M38313.1 "PIGATPASEN Pig Na<sup>+</sup>, K<sup>+</sup>-ATPase beta-subunit mRNA, complete cds"  
M38445.1 "PIGATPASEN Pig Na<sup>+</sup>, K<sup>+</sup>-ATPase alpha subunit mRNA, complete cds"  
M55165.1 "PIGLAC Miniature swine MHC class II SLA-DRB-c mRNA, complete cds"  
M55166.1 "PIGLAC Miniature swine MHC class II SLA-DRB-d mRNA, complete cds"  
M57446.1 "PIGALP Porcine antileukoproteinase mRNA, complete cds"  
M57674.1 "PIGFDXA Pig ferredoxin mRNA, complete cds"  
M63507.1 "PIGC4501AH Pig cytochrome P450 17a-hydroxylase mRNA, complete cds"  
M64227.1 "PIGPREP Pig prolyl endopeptidase mRNA, complete cds"  
M64758.1 "PIGCNP Pig C-type natriuretic peptide (CNP) gene, complete cds"  
M65087.1 "PIGMX1A Pig Mx1 protein mRNA, complete cds"  
M68860.1 "PIGRBP Sus scrofa retinol-binding protein mRNA, complete cds"  
M69100.1 "PIGHSP70G Pig hsp70 gene, complete cds"  
M73237.1 "PIGPTK Porcine protein-tyrosine kinase (syk) mRNA, complete cds"  
M74420.1 "PIGCTR Pig calcitonin receptor mRNA, complete cds"  
M80258.1 "PIGIL6A Sus scrofa interleukin 6 (IL-6) mRNA, complete cds"  
M80520.1 "PIGLACAA Sus scrofa alpha-lactalbumin mRNA, complete cds"  
M80534.1 "PIGCOATR Pig succinyl-CoA:alpha-ketoacid coenzyme A transferase mRNA, complete cds"  
M80709.1 "PIG20BHD Sus scrofa 20-beta-hydroxysteroid dehydrogenase mRNA, complete cds"

M80800.1 "PIGTRKC Pig gp145-trkC (trkC) mRNA, complete cds"  
M81327.1 "PIGLAC Sus scrofa lactoferrin mRNA, complete cds"  
M81769.1 "PIGIGHVGA S.domesticus immunoglobulin rearranged gamma chain mRNA, VJC region, complete cds"  
M81771.1 "PIGIGHVGC S.domesticus immunoglobulin rearranged gamma chain mRNA, VJC region, complete cds"  
M83939.1 "PIGMHCYPLW Sus scrofa MHC SLA class III steroid 21-hydroxylase (CYP21) gene, complete cds, ORF human like gene, last 5 exons""  
M84639.1 "PIGCCIMRA Pig complement cytolysis inhibitor mRNA, complete cds"  
M84802.1 "PIGMT4AMIN Sus scrofa 4-aminobutyrate aminotransferase mRNA, complete cds"  
M86347.1 "PIGFR16BP Pig fructose kidney cortex 1,6-bisphosphatase (fbp) mRNA, complete cds"  
M86444.1 "PIGMOESB Sus scrofa moesin B mRNA, complete cds"  
M86450.1 "PIGMOES Sus scrofa moesin (moesin) mRNA, complete cds"  
M86722.1 "PIGPRO Sus scrofa prointerleukin 6 mRNA, complete cds"  
M86725.1 "PIGPILKNIB Sus scrofa prointerleukin-1 beta mRNA, complete cds"  
M86730.1 "PIGPRINTIA Sus scrofa prointerleukin-1 alpha mRNA, complete cds"  
M86762.1 "PIGINFB Sus scrofa interferon-beta-1 gene, complete cds"  
M86923.1 "PIGINTR8A Sus scrofa interleukin 8 mRNA, complete cds"  
M88166.1 "PIGPRPS Pig small proline-rich protein (sPRP) mRNA, complete cds"  
M89631.1 "PIGNAHEXCH Sus scrofa Na<sup>+</sup>-H<sup>+</sup> exchanger mRNA (clone PCR 242.8,116,250), complete cds"  
M91451.1 "PIGRYRMH Sus scrofa Belgisch Landras/Pietrain ryanodine receptor (RYR1) mRNA, complete cds"  
M91452.1 "PIGRYRN Sus scrofa Yorkshire ryanodine receptor (RYR1) mRNA, complete cds"  
M92089.1 "PIGPLF Sus scrofa porcine lactoferrin (PLF) mRNA, complete cds"  
M93028.1 "PIGMHCIIID Pig MHC class II (SLA-DR-alpha) mRNA, complete cds"  
M97753.1 "PIGSLTFA Sus scrofa gal beta-1,3 GalNAc alpha-2,3 sialyltransferase mRNA, complete cds"  
M98553.1 "PIGTRAP Sus scrofa tartrate-resistant acid phosphatase mRNA, complete cds"  
M99367.1 "PIGAMCFI Pig alveolar macrophage-derived chemotactic factor-I (AMCF-I) mRNA, complete cds"  
M99368.1 "PIGAMCFII Pig alveolar macrophage-derived chemotactic factor-II (AMCF-II) mRNA, complete cds"  
S63967.1 " Synthetic construct Sus scrofa interferon-gamma gene, complete cds"  
S80568.1 "S80568 Sus scrofa seminal plasma sperm motility inhibitor/spermadhesin AQN-3-like protein (SPMI) mRNA, complete cds""  
U00794.1 "SSU00794 Sus scrofa POU-domain protein (OCT2) mRNA, complete cds"  
U02476.1 "SSU02476 Sus scrofa NADPH oxidase heavy chain subunit (gp91-phox) mRNA, complete cds"  
U02477.1 "SSU02477 Sus scrofa NADPH oxidase light chain subunit (gp22-phox) mRNA, complete cds"  
U02626.1 "SSPSP I Sus scrofa porcine seminal protein (PSP-I) mRNA, complete cds"  
U02627.1 "SSPSP II Sus scrofa porcine seminal protein (PSP-II) mRNA, complete cds"  
U07178.1 "SDU07178 Sus domesticus lactate dehydrogenase-A (LDH-A) mRNA, complete cds"  
U07180.1 "SDU07180 Sus domesticus lactate dehydrogenase-B (LDH-B) mRNA, complete cds"  
U08317.1 "SSU08317 Sus scrofa interleukin-12 p40 subunit mRNA, complete cds"  
U08350.1 "SSU08350 Sus scrofa E-selectin mRNA, complete cds"  
U08351.1 "SSU08351 Sus scrofa vascular cell adhesion molecule mRNA, complete cds"

U09179.1 "SSU09179 Sus scrofa dihydropyrimidine dehydrogenase mRNA, complete cds"  
 U09985.1 "SSU09985 Sus scrofa acrosin inhibitor mRNA, complete cds"  
 U12574.1 "SSU12574 Sus scrofa myogenic regulatory factor MyoD (myoD) gene, complete cds"  
 U13941.1 "SSU13941 Sus scrofa CD18 mRNA, complete cds"  
 U14331.1 "SSU14331 Sus scrofa myogenin gene, complete cds"  
 U14751.1 "SSU14751 Sus scrofa hyaluronidase mRNA, complete cds"  
 U16131.1 "SSU16131 Sus scrofa transthyretin precursor mRNA, complete cds"  
 U17062.1 "SSU17062 Sus scrofa protein N-terminal asparagine amidohydrolase mRNA, complete cds"  
 U18315.1 "SSU18315 Sus scrofa parathyroid receptor (PTH) mRNA, complete cds"  
 U19787.1 "SSU19787 Sus scrofa growth hormone mRNA, complete cds"  
 U19788.1 "SSU19788 Sus scrofa growth hormone mRNA, complete cds"  
 U19900.1 "SSU19900 Sus scrofa 38kDa heparin-binding glycoprotein mRNA, complete cds"  
 U19994.1 "SSU19994 Sus scrofa p55 TNF receptor mRNA, complete cds"  
 U20545.1 "SSU20545 Sus scrofa prohormone convertase precursor (PC1/3) mRNA, complete cds"  
 U21119.1 "SSIGFBPII3 Sus scrofa IGF binding protein-2 (IGF) gene, exon 4 and complete cds"  
 U22108.1 "SSU22108 Sus scrofa G protein-coupled receptor gene, complete cds"  
 U25681.1 "SSU25681 Sus scrofa dopamine receptor (D1A) gene, complete cds"  
 U27083.1 "SSU27083 Sus scrofa putative prostaglandin EP3-receptor mRNA, complete cds"  
 U28757.1 "SSU28757 Sus scrofa lysozyme gene, complete cds"  
 U29948.1 "SSU29948 Sus scrofa putative preproadipin mRNA, complete cds"  
 U36916.1 "SSU36916 Sus scrofa porcine inhibitor of carbonic anhydrase (pICA) mRNA, complete cds"  
 U37311.1 SSU37311 Sus scrofa clone ARO33F cytochrome P450 aromatase mRNA complete cds  
 U37312.1 "SSU37312 Sus scrofa clone ARO34B cytochrome P450 aromatase mRNA, complete cds"  
 U37521.1 "SSU37521 Sus scrofa E-selectin gene, complete cds"  
 U38619.1 "SSU38619 Sus scrofa small intestine diadenosine tetraphosphatase mRNA, complete cds"  
 U39763.1 "SSPAG208 Sus scrofa pregnancy-associated glycoprotein (pPAG2) gene, exons 8 and 9, complete cds"  
 U39816.1 "SSU39816 Sus scrofa thyrotropin beta subunit precursor (TSH-beta) mRNA, complete cds"  
 U40024.1 "SSU40024 Sus scrofa zonadhesin (Zan) mRNA, complete cds"  
 U40845.1 "SSU40845 Sus scrofa medium-chain acyl-CoA dehydrogenase mRNA, complete cds"  
 U41340.2 "SSU41340 Sus scrofa insulin-like growth factor binding protein-5 (IGFBP5) mRNA, complete cds"  
 U41525.1 "PIGYP7 Sus scrofa 17-alpha-hydroxylase cytochrome P450 (CYP17) gene, exon 8 and complete cds"  
 U41732.1 "SSU41732 Sus scrofa cysteine proteinase inhibitor stefin A5 mRNA, complete cds"  
 U41733.1 "SSU41733 Sus scrofa cysteine proteinase inhibitor stefin A8 mRNA, complete cds"  
 U41734.1 "SSU41734 Sus scrofa cysteine proteinase inhibitor stefin A1 mRNA, complete cds"  
 U43164.1 "SSU43164 Sus scrofa inter-alpha-trypsin inhibitor family heavy chain-related protein mRNA, complete cds"  
 U43404.1 "SSU43404 Sus scrofa ameloblastin mRNA, complete cds"  
 U43405.1 "SSU43405 Sus scrofa amelogenin 173A mRNA, complete cds"

U43406.1 "SSU43406 Sus scrofa amelogenin 173B mRNA, complete cds"  
 U43490.1 "SSU43490 Sus scrofa oviductal secretory glycoprotein precursor mRNA, complete cds"  
 U44435.1 "SSU44435 Sus scrofa lysozyme mRNA, complete cds"  
 U44846.1 "SSU44846 Sus scrofa cytosolic malate dehydrogenase mRNA, complete cds"  
 U46064.1 "SSU46064 Sus scrofa aldehyde reductase (ALR1) mRNA, complete cds"  
 U49434.1 "SSU49434 Sus scrofa vasoactive intestinal peptide receptor mRNA, complete cds"  
 U49435.1 "SSU49435 Sus scrofa growth hormone-releasing hormone receptor mRNA, complete cds"  
 U49517.1 "SSU49517 Sus scrofa factor VIII precursor mRNA, complete cds"  
 U49860.1 "SSU49860 Sus scrofa SRY protein (SRY) gene, complete cds"  
 U52141.1 "SSU52141 Sus scrofa aromatase (HFAROA10) mRNA, complete cds"  
 U52142.1 "SSU52142 Sus scrofa aromatase type II (HFAROP2) mRNA, complete cds"  
 U52196.1 "SSU52196 Sus scrofa enamelin precursor mRNA, complete cds"  
 U53020.1 "SSU53020 Sus scrofa steroidogenic acute regulatory protein mRNA, complete cds"  
 U54825.1 "SSU54825 Sus scrofa matrix metalloproteinase mRNA, complete cds"  
 U55039.1 "SSU55039 Sus scrofa aminopeptidase P mRNA, complete cds"  
 U55068.1 "SSU55068 Sus scrofa domestica natural resistance associated macrophage protein 1 (NRAMP1) mRNA, complete"  
 U57333.1 "SSU57333 Sus scrofa spermidine/spermine N-acetyltransferase mRNA, complete cds"  
 U57644.1 "SSU57644 Sus scrofa ciliary neurotrophic factor (CNTF) gene, complete cds"  
 U58142.1 "SSU58142 Sus scrofa interleukin-15 mRNA, complete cds"  
 U59924.1 "SSU59924 Sus scrofa nitric oxide synthase (NOS) mRNA, complete cds"  
 U60178.1 "SSU60178 Sus scrofa growth hormone secretagogue receptor type 1a mRNA, complete cds"  
 U60180.1 "SSU60180 Sus scrofa growth hormone secretagogue receptor type 1b mRNA, complete cds"  
 U61139.1 "SSU61139 Sus scrofa granulocyte-macrophage colony-stimulating factor mRNA, complete cds"  
 U62253.1 "SSU62253 Sus scrofa 16kDa secretory protein mRNA, complete cds"  
 U63540.1 "SSU63540 Sus scrofa leptin (ob) mRNA, complete cds"  
 U66254.1 "SSU66254 Sus scrofa leptin (ob) gene, complete cds"  
 U66371.1 "SSU66371 Sus scrofa aminopeptidase A mRNA, complete cds"  
 U67175.1 "SSU67175 Sus scrofa putative granulocyte macrophage-colony stimulating factor (GM-CSF) mRNA, complete cds"  
 U67318.1 "SSU67318 Sus scrofa putative granulocyte macrophage-colony stimulating factor precursor (GM-CSF) gene"  
 U68478.1 "SSU68478 Sus scrofa cyclin-dependent kinase 4 (CDK4) gene, complete cds"  
 U68481.1 "SSU68481 Sus scrofa granulocyte-colony stimulating factor mRNA, complete cds"  
 U68482.1 "SSU68482 Sus scrofa granulocyte-colony stimulating factor (G-CSF) gene, complete cds"  
 U68701.1 "SSU68701 Sus scrofa interleukin-18 mRNA, complete cds"  
 U70060.1 "U70060 Sus scrofa connective tissue growth factor (CTGF) mRNA, complete cds"  
 U70240.1 "SSU70240 Sus scrofa apolipoprotein-E (Apo-E) gene, complete cds"  
 U70881.2 "SSU70881 Sus scrofa alpha(1,2)fucosyltransferase (FUT2) gene, complete cds"  
 U70883.2 "SSU70883 Sus scrofa alpha(1,2)fucosyltransferase (FUT1) gene, complete cds"

U71273.1 "SSU71273 Sus scrofa glucosidase II mRNA, complete cds"  
 U72496.1 "SSU72496 Sus scrofa ubiquitin/ribosomal fusion protein mRNA, complete cds"  
 U72543.1 "SSU72543 Sus scrofa ubiquitin-like/S30 ribosomal fusion protein (fau) mRNA, complete cds"  
 U72758.1 "SSU72758 Sus scrofa orphanin FQ/nociceptin receptor mRNA, complete cds"  
 U72970.1 "SSU72970 Sus scrofa calcium/calmodulin-dependent protein kinase II isoform gamma-B mRNA, complete cds"  
 U72971.1 "SSU72971 Sus scrofa calcium/calmodulin-dependent protein kinase II isoform gamma-C mRNA, complete cds"  
 U72973.1 "SSU72973 Sus scrofa calcium/calmodulin-dependent protein kinase II isoform gamma-G mRNA, complete cds"  
 U73504.1 "SSU73504 Sus scrofa calcium/calmodulin-dependent protein kinase II delta 2-subunit mRNA, complete cds"  
 U75316.1 "SSU75316 Sus scrofa beta-myosin heavy chain mRNA, complete cds"  
 U76256.1 "SSU76256 Sus scrofa enamel matrix serine proteinase 1 precursor, mRNA, complete cds"  
 U78317.1 "SSU78317 Porcine interleukin-2 receptor alpha chain mRNA, complete cds"  
 U79142.1 "SSU79142 Sus scrofa putative inhibitor of apoptosis (PIAP) mRNA, complete cds"  
 U80853.1 "SSU80853 Sus scrofa mullerian inhibitory substance (MIS) mRNA, complete cds"  
 U82466.1 "SSU82466 Sus scrofa DAX-1 mRNA, complete cds"  
 U82533.3 "ECU82533 Escherichia coli porcine attaching-effacing associated protein (paa) gene, complete cds"  
 U83916.1 "SSU83916 Sus scrofa connective tissue growth factor (CTGF) mRNA, complete cds"  
 U84399.1 "SSU84399 Sus scrofa steroidogenic factor-1 SF-1 (SF-1) mRNA, complete cds"  
 U85404.1 "SSU85404 Sus scrofa cGMP-gated cation channel (CNG-1) mRNA, complete cds"  
 U87622.1 "SSU87622 Sus scrofa 15-oxoprostaglandin 13-reductase mRNA, complete cds"  
 U88368.1 "SSU88368 Sus scrofa inositol(1,3,4,5)tetrakisphosphate receptor mRNA, complete cds"  
 U89949.1 "SSU89949 Sus scrofa folate binding protein mRNA, complete cds"  
 U90884.1 "SSU90884 Sus scrofa hydroxymethylglutaryl-CoA synthase mRNA, complete cds"  
 U92245.1 "SSU92245 Sus scrofa aromatase cytochrome P450 (CYP19) mRNA, complete cds"  
 U92246.1 "SSU92246 Sus scrofa aromatase cytochrome P450 (CYP19) mRNA, complete cds"  
 U94395.1 "SSU94395 Sus scrofa 90-kDa heat shock protein (hsp90) mRNA, complete cds"  
 U95378.1 "SSU95378 Sus scrofa domestica lactate dehydrogenase-C (LDH-C) mRNA, complete cds"  
 U95969.1 "SSU95969 Sus scrofa metallothionein-III (MT-III) mRNA, complete cds"  
 U96100.1 "SSU96100 Sus scrofa immunoglobulin E epsilon chain precursor, mRNA, complete cds"  
 U96135.1 "SSU96135 Sus scrofa domestica phosphatidylinositol-4-phosphate-5-kinase mRNA, complete cds"  
 U96150.1 "SSU96150 Sus scrofa tear lipocalin/von Ebner's lingual gland protein (LCNI) gene, complete cds"  
 X00135.1 SSPOM1 Porcine pro-opiomelanocortin messenger RNA (POMC)  
 X12764.1 SSNF1A Porcine NFI gene for nuclear factor I (partial)  
 X52731.1 SSIL1A Pig mRNA for interleukin 1-alpha  
 X57321.1 SSTNFAL S.scrofa TNF-alpha mRNA for tumor necrosis factor alpha  
 X60317.1 SSAFGFRNA S.scrofa acidic fibroblast growth factor mRNA  
 X61599.1 SSTEN S.scrofa mRNA for tenascin  
 X67295.1 SSHBGF S.scrofa mRNA for heparin-binding epidermal growth factor

X79416.1	SSMCP1 S.scrofa MCP-1 mRNA for monocyte chemoattractant protein 1
X81380.1	SSVEGF S.scrofa mRNA for vascular endothelial growth factor
X92979.1	SSPROSDSN S.scrofa mRNA for putative prostaglandin D synthase
X98505.1	SCCD31 S.scrofa mRNA for CD31 protein (PECAM-1)
Z11854.1	"SS17AHCP1 S.scrofa gene for 17a-hydroxylase cytochrome P450, exon 1"
Z11855.1	"SS17AHCP2 S.scrofa gene for 17a-hydroxylase cytochrome P450, exons 2-5"
Z11856.1	"SS17AHCP3 S.scrofa gene for 17a-hydroxylase cytochrome P450, exons 6-8"
ZZ3142.1	"SSENDOGA S.scrofa endoglin mRNA, complete CDS"

Table 3. Control genes used for *C. porcellus* oligonucleotide array design.

<b>Name</b>	<b>Database</b>	<b>Alias</b>	<b>Start</b>	<b>End</b>	<b>StartSeq</b>	<b>EndSeq</b>	<b>Description</b>
AF508792.1	GenBank	21070354-3	1146	1746	actacttt	aaaaaaaa	" <i>Cavia porcellus</i> beta actin mRNA, complete cds"
AF508792.1	GenBank	21070354-M	545	1145	ctggctgg	ggactggt	" <i>Cavia porcellus</i> beta actin mRNA, complete cds"
AF508792.1	GenBank	21070354-5	1	544	gctcacca	gtctggac	" <i>Cavia porcellus</i> beta actin mRNA, complete cds"



Table 4. Control genes used for *S. scrofa* oligonucleotide array design.

<b>Name</b>	<b>Database</b>	<b>Alias</b>	<b>Start</b>	<b>End</b>	<b>StartSeq</b>	<b>EndSeq</b>	<b>Description</b>
AF017079.1	GenBank	AF017079.1-3	819	1419	aaggtcat	cacagccc	" <i>Sus scrofa</i> glyceraldehyde 3 Phosphate dehydrogenase (GAPDH) mRNA, complete cds - from 3 prime end of sequence"
AF017079.1	GenBank	AF017079.1-M	409	818	ctggcaaa	ccctggcc	" <i>Sus scrofa</i> glyceraldehydes Phosphate dehydrogenase (GAPDH) mRNA, complete cds - from middle of sequence"
AF017079.1	GenBank	AF017079.1-5	1	408	ctctctgc	ttttaact	" <i>Sus scrofa</i> glyceraldehyde 3 Phosphate dehydrogenase (GAPDH) mRNA, complete cds - from 5 prime end of sequence"
U16368.1	GenBank	U16368.1-3	4557	5157	atttgtt	aaaagcct	"SSU16368 <i>Sus scrofa</i> skeletal alpha Actin gene, complete cds - from 3 prime end of sequence"
U16368.1	GenBank	U16368.1-M	2000	2600	caggtgta	cgcagtgc	"SSU16368 <i>Sus scrofa</i> skeletal alpha Actin gene, complete cds - from middle of sequence"
U16368.1	GenBank	U16368.1-5	1	600	aagctgc	taaagcat	"SSU16368 <i>Sus scrofa</i> skeletal alpha Actin gene, complete cds - from 5 prime end of sequence"

Table 5. Quality control parameters from guinea pig oligonucleotide array test.

Noise (RawQ):	3.210				
Scale Factor (SF):	1.770				
TGT Value:	150				
Background:					
Avg:	84.21	Std: 1.87	Min: 78.90	Max: 89.40	
Noise:					
Avg:	5.89	Std: 0.49	Min: 4.70	Max: 7.60	
Corner+					
Avg:	131		Count: 32		
Corner-					
Avg:	4137		Count: 32		
Central-					
Avg:	4417		Count: 9		
Average Signal (P):	955.5				
Average Signal (A):	61.9				
Average Signal (M):	162.6				
Average Signal (All):	271.3				
<hr/>					
Spike Controls:					
Probe Set	Sig(5')	Det(5')	Sig(M')	Det(M')	Sig(3') Det(3') Sig(all) Sig(3'/5')
BIOB	217.5	M	165.3	P	124.7 P 169.15 0.57
BIOC	456.0	P			295.5 P 375.77 0.65
BIODN	258.0	P			2189.5 P 1223.72 8.49
CREX	4010.7	P			5858.0 P 4934.33 1.46

Figure 1. Image file from scanned guinea pig oligonucleotide array probed with guinea pig liver RNA.

