APPENDIX

Appendix A: Reagents Preparation

1% Agarose gel with ethidium :

Agarose powder	1.0	g
1X TBE buffer	100.0	ml
Ethidium bromide	7.0	µl

Digestion buffer :

2M Nacl (116.9 mg/ml)	5.0	ml
1M Tris pH 8.0 (121.1 mg/ml)	5.0	ml
0.5M EDTA (186.1 mg/ml)	0.2	ml
Millipore Water added to	100.0	ml

10 mM dNTPs solution :

100 mM dATP	0.1	ml
100 mM dGTP	0.1	ml
100 mM dCTP	0.1	ml
100 mM dTTP	0.1	ml
Millipore Water added to	1.0	ml

0.5M EDTA pH 8.0 :

EDTA ($Na_2.2H_2O$)	186.1	g
Millipore Water added to	1000.0	ml
Adjust to pH 8.0		

Ethidium bromide solution :

Ethidium bromide	1.0	g
Millipore Water	100.0	ml

Phosphate buffer saline (PBS) pH 7.4 :

Sodium chloride	8766.0	mg
di-Sodium hydrogen phosphate	1495.0	mg
Potassium dihydrogen phosphate	204.0	mg
Potassium chloride	200.0	mg
Millipore Water added to	1000.0	ml
Adjust to pH 7.4		
Autoclave		

3M Sodium acetate pH 5.2:

Sodium acetate (MW 82.03)	246.1	g
Millipore Water added to	1000.0	ml
Adjust to pH 5.2		

2M Sodium chloride :

Sodium chloride (MW 58.44)	116.9	g
Millipore Water added to	1000.0	ml

6M Sodium chloride :

Sodium chloride (MW 58.44)	350.6	g
Millipore Water added to	1000.0	ml

9% Sodium chloride :

Sodium chloride (MW 58.44)	9.0	g
Millipore Water	100.0	ml

10% Sodium dodecyl sulfate (SDS) :

Sodium dodecyl sulfate	10.0	g
Millipore Water	100.0	ml

1X TBE buffer :

10X TBE buffer	20.0	ml
Millipore Water added to	1000.0	ml

10X TBE buffer :

Tris	108.0	g
Boric acid	55.0	g
0.5M EDTA (186.1 mg/ml)	2.0	ml
Millipore Water added to	1000.0	ml

TE buffer :

1M Tris pH 8.0 (121.1 mg/ml)	10.0	ml
0.5M EDTA pH 8.0 (186.1 mg/ml)	2.0	ml
Millipore Water added to	1000.0	ml

1M Tris pH 8.0 :

Tris-base	121.1	g
Millipore Water added to	1000.0	ml
Adjust to pH 8.0		

Appendix B: Data analyses

The concentration and O.D. ratio of DNA sample

No.	*Animal*	*DNA (ng/ul)*	*260/280*	*260/230*
1	CS-1	2058.54	1.9	2.25
2	CS-2	2642.7	1.87	2.18
3	CS-3	2198.31	1.88	2.2
4	CS-4	974.15	1.91	2.24
*5	CS-5	511.09	1.89	1.91
*6	CS-6	524.18	1.85	1.55
*7	CS-7	850.55	1.86	1.46
*8	CS-8	446.9	1.83	1.32
9	VC-1	1090.67	1.9	2.26
10	VC-2	1045.71	1.88	2.26
11	VC-3	2288.59	1.89	2.25
12	Fa-1	400.43	1.81	2.92
13	Fa-2	1128.57	1.9	2.23
14	Fa-3	1060.28	1.91	2.3
15	Fa-4	1344.59	1.9	2.33
16	JT-1	2796.11	1.87	2.3
17	JT-2	2769.82	1.87	2.31
18	JT-3	1371.14	1.89	2.32
19	JT-4	3084.36	1.86	2.29
20	JT-5	1472.41	1.86	2.29
21	JT-6	1577.95	1.9	2.32
22	JT-7	2158.71	1.85	2.24
23	JT-8	2285.76	1.88	2.31
24	JT-9	1866.38	1.9	2.28
25	JT-10	1378.56	1.91	2.34
26	JT-11	423.1	1.77	1.41
27	JT-12	1430.96	1.9	2.22
**28	JT-13	--	--	--
**29	JT-14	--	--	--
**30	JT-15	--	--	--
**31	LP-1	271.8	1.88	1.92
**32	LP-2	--	--	--
**33	LP-3	--	--	--
**34	LP-4	--	--	--

CS = Chiang Saen, VC = Viang Chai, Fa = Fang, JT = Jhom Thong, LP = Lamphun, WB = Wild Boar, MS = Mae Hong Son, CD = Chiang Dao

Sample 1 - 4, 9 - 27, 35 - 39 from bloods, *Sample 5 - 8, 44 - 65 from ear clips ,

****Sample 28 - 35, 40 - 43 from hairs,**

The concentration and O.D. ratio of DNA sample (continue)

No.	*Animal*	*DNA (ng/ul)*	*260/280*	*260/230*
35	WB-1	2222.2	1.89	2.22
36	WB-2	697.56	1.88	2.16
37	WB-3	449.77	1.86	2.02
38	WB-4	1663.29	1.9	2.24
39	WB-5	87.61	1.54	0.87
**40	WB-6	--	--	--
**41	WB-7	--	--	--
**42	WB-8	--	--	--
**43	WB-9	--	--	--
*44	MS-1	2331.0	1.86	1.83
*45	MS-2	815.0	1.81	1.11
*46	MS-3	1603.9	1.83	2.02
*47	MS-4	160.0	1.91	1.96
*48	MS-5	355.0	1.87	1.9
*49	MS-6	650.0	1.81	1.89
*50	CD-1	247.08	1.68	0.39
*51	CD-2	1978.1	1.87	1.52
*52	CD-3	1906.45	1.87	1.53
*53	CD-4	3220.29	1.74	1.01
*54	CD-5	1986.95	1.86	1.48
*55	CD-6	2076.29	1.83	1.36
*56	CD-7	1961.68	1.87	1.58
*57	CD-8	1823.57	1.87	1.52
*58	CD-9	2031.85	1.82	1.31
*59	CD-10	1987.86	1.84	1.66
*60	CD-11	2061.03	1.88	1.73
*61	CD-12	1592.48	1.79	1.04
*62	CD-13	1265.02	1.88	1.55
*63	CD-14	2852.69	1.85	1.6
*64	CD-15	949.83	1.91	1.88
*65	CD-16	2525.47	1.77	1.17

CS = Chiang Saen, VC = Viang Chai, Fa = Fang, JT = Jhom Thong, LP = Lamphun,

WB = Wild Boar, MS = Mae Hong Son, CD = Chiang Dao

Sample 1 - 4, 9 - 27, 35 - 39 from bloods, *Sample 5 - 8, 44 - 65 from ear clips ,

****Sample 28 - 35, 40 - 43 from hairs,**

Multiple sequence alignment of 14 Thai pig haplotypes

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H11         CAACCAAAACAAGCATTCCATTCGTATGCAAACCAAAACGCCAAGTACTTAATTACTATC 60
H13         CAACCAAAACAAGCATTCCATTCGTATGCAAACCAAAACGCCAAGTACTTAATTACTATC 60
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H13     ATTATTGATCGTACATAGCACATATCATGTCAAATAATTCCAGTCAACATGCGTATCACC 300
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H5      ATTATTGATCGTACATAGCACATATCATGTCAAATAACTCCAGTCAACATGCGTATCACC 300
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Laurasiatheria; Cetartiodactyla; Suina; Suidae; Sus.
REFERENCE 1
AUTHORS Ursing,B.M. and Arnason,U.
TITLE The complete mitochondrial DNA sequence of the pig (Sus scrofa)
JOURNAL J. Mol. Evol. 47 (3), 302-306 (1998)
PUBMED 9732457
REFERENCE 2
AUTHORS Ursing,B.M.
TITLE Direct Submission
JOURNAL Submitted (29-OCT-1997) Ursing B.M., Lund University, Department of Genetics, Solvegatan 29, S-223 62 Lund, SWEDEN
REMARK Revised by [3]
REFERENCE 3 (bases 1 to 16680)
AUTHORS Ursing,B.M.
TITLE Direct Submission
JOURNAL Submitted (02-FEB-1999) Ursing B.M., Lund University, Department of Genetics, Solvegatan 29, S-223 62 Lund, SWEDEN
COMMENT On Feb 4, 1999 this sequence version replaced gi:3702648.
FEATURES Location/Qualifiers
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D-loop region---------->

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15961 ataactgagg tttcatacat ttggtatttt ttaatttttg gggatgctta gactcagcca
16021 tggccgtcaa aggccctaac acagtcaaat caattgtagc tggacttcat ggaactcatg

CSB-1

16081 atccggcacg acaatccaaa caaggtgcta ttcagtcaat ggttacagga cataacgtac

mtVNTR "cgtgcgtaca"/ 22-28 repeat

16141 atacacgtgc gtacacgtgc gtacacgtgc gtacacgtgc gtacacgtgc gtacacgtgc
16201 gtacacgtgc gtacacgtgc gtacacgtgc gtacacgtgc gtacacgtgc gtacacgtgc
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16381 aacccccctt accccccatt aaacttatgc tctacacacc ctataacgcc ttgccaaacc

CSB-2

16441 ccaaaaacaa agcagagtgt acaaatacaa taagcctaac ttacactaaa caacatttaa
16501 caacacaaac caccatatct tataaaacac ttacttaaat acgtgctacg aaagcaggca
16561 cctacccccc tagattttta cgccaatcta ccataaataa atttaaaatt acaacacaat
16621 aacctcccaa aatataagca cctatttaag tatacgccca caatctgaat atagcttata

<----------D-loop region

CURRICULUM VITAE

Personal information:

Name:	**Mister Rangsun Charoensook**
Date of Birth:	March 8, 1981
Place of Birth:	Lampang, Thailand
Nationality:	Thai
Marital Status:	Single

Education:

1987-1993	Primary School at Anubal Lampang School, Lampang, Thialand
1993-1996	Middle School at Bunyawat Withayalai School, Lampang, Thailand
1996-1999	High School at Bunyawat Withayalai School, Lampang, Thailand
1999-2003	Bachelor degree majoring in Animal Science, Department of Animal Science, Agricultural Faculty, Chiang Mai University, Chiang Mai, Thailand
2003-2006	Master degree majoring in Animal Science, Department of Animal Science, Agricultural Faculty, Chiang Mai University, Chiang Mai, Thailand

Experiences:

March-May 2002	Job Training **"Total Poultry Framing System"** at C.P. Group, **Nakhon Ratchasima, Thailand**
October 2003	Organizing Committee of the 4th International Symposium-cum-Workshop **"Food Security and Sustainable Resource Management in a Market Economy: Challenges and Option"** organized by SEAG, Chiang Mai University, the University Consortium, Georg-August-University Goettingen, University of Kassel and Philipps University Marburg, held at **Chiang Mai, Thailand**
December 2003	Participate in the Agricultural Biotechnology Workshop **"PCR Techniques and Its Application"** organized by Agricultural Biotechnology Research Center, Chiang Mai University, held at **Chiang Mai, Thailand**
December 2004	Participate in the Agricultural Biotechnology Workshop **"Bioinformatics and Biotechnology"** organized by Agricultural Biotechnology Research Center, Chiang Mai University, held at **Chiang Mai, Thailand**
October 2005	Participate in Tropentag 2005 International Conference on Research for Development in Agriculture and forestry, Food and Natural Resource Management **"The Global Food and Product Chain Dynamic, Innovations, Conflicts Strategies"** October 11-13, 2005 at University of Hohenheim, **Stuttgart, Germany**
October 2005-March 2006	Research worked for Master Thesis **"Phylogenetic studies of Thai Native Pigs"** at Molecular Biology of Livestock Department, the Institute of Veterinary Medicine (IVM), Georg-August-University Goettingen, **Goettingen, Germany**

Poster presentation and Proceeding:

Gatphayak, K., N. Chongkasikit, **R. Charoensook,** W. Laenoi, T. Vearasilp, V. Sardsud, C. Knorr, U. ter Meulen and B. Brenig. 2005. Present situation of porcine hernia inguinalis/scrotalis in Thailand. Deutscher Tropentag 2005, International Conference on Research for Development in Agriculture and forestry, Food and Natural Resource Management, *"The Global Food and Product Chain Dynamic, Innovations, Conflicts Strategies"* October 11-13, 2005 at University of Hohenheim, Stuttgart, Germany.

Laenoi, W., **R. Charoensook,** K. Gatphayak, T. Vearasilp, U. ter Meulen, B. Brenig and C. Knorr. 2006. Molecular Characterization and Chromosomal Assignment of Porcine *Bax* and *Tac1*. Deutscher Tropentag 2006, International Conference on Research for Development in Agriculture and forestry, Food and Natural Resource Management, *"Prosperity and Poverty in a Globalised World-Challenges for Agricultural Research"* October 11-13, 2006 at Rheinische Friedrich-Wilhelms University of Bonn, Bonn, Germany.

Charoensook, R., K. Gatphayak, W. Laenoi, T. Vearasilp, U. ter Meulen, G. Kierstein, B. Brenig and C. Knorr. 2006. Genetic diversity and Phylogenetic relationships of several indigenous Thai pigs assessed by the mtDNA D-loop sequence. Deutscher Tropentag 2006, International Conference on Research for Development in Agriculture and forestry, Food and Natural Resource Management, *"Prosperity and Poverty in a Globalised World-Challenges for Agricultural Research"* October 11-13, 2006 at Rheinische Friedrich-Wilhelms University of Bonn, Bonn, Germany.