APPENDICES

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix A

Homo sapiens TAp63 alpha mRNA sequence, complete cds (1926 bp**), GenBank accession number AF075430**

1	atgtcccaga	gcacacagac	aaatgaattc	ctcagtccag	aggttttcca	gcatatctgg
61	gattttctgg	aacagcctat	atgttcagtt	cagcccattg	acttgaactt	tgtggatgaa
121	ccatcagaag	atggtgcgac	aaacaagatt	gagattagca	tggactgtat	ccgcatgcag
181	gactcggacc	tgagtgaccc	catgtggcca	cagtacacga	acctggggct	cctgaacagc
241	atggaccagc	agattcagaa	cggctcctcg	tccaccagtc	cctataacac	agaccacgcg
301	cagaacagcg	tcacggcgcc	ctcgccctac	gcacagccca	gctccacctt	cgatgctctc
361	tctccatcac	ccgccatccc	ctccaacacc	gactacccag	gcccgcacag	tttcgacgtg
421	tccttccagc	agtcgagcac	cgccaagtcg	gccacctgga	cgtattccac	tgaactgaag
481	aaactctact	gccaaattgc	aaagacatgc	cccatccaga	tcaaggtgat	gaccccacct
541	cctcagggag	ctgttatccg	cgccatgcct	gtctacaaaa	aagctgagca	cgtcacggag
601	gtggtgaagc	ggtgccccaa	ccatgagctg	agccgtgaat	tcaacgaggg	acagattgcc
661	cctcctagtc	atttgattcg	agtagagggg	aacagccatg	cccagtatgt	agaagatccc
721	atcacaggaa	gacagagtgt	gctggtacct	tatgagccac	cccaggttgg	cactgaattc
781	acgacagtct	tgtacaattt	catgtgtaac	agcagttgtg	ttggagggat	gaaccgccgt
841	ccaattttaa	tcattgttac	tctggaaacc	agagatgggc	aagtcctggg	ccgacgctgc
901	tttgaggccc	ggatctgtgc	ttgcccagga	agagacagga	aggcggatga	agatagcatc
961	agaaagcagc	aagtttcgga	cagtacaaag	aacggtgatg	gtacgaagcg	cccgtttcgt
1021	cagaacacac	atggtatcca	gatgacatcc	atcaagaaac	gaagatcccc	agatgatgaa
1081	ctgttatact	taccagtgag	gggccgtgag	acttatgaaa	tgctgttgaa	gatcaaagag
1141	tccctggaac	tcatgcagta	ccttcctcag	cacacaattg	aaacgtacag	gcaacagcaa
1201	cagcagcagc	accagcactt	acttcagaaa	cagacctcaa	tacagtctcc	atcttcatat
1261	ggtaacagct	ccccacctct	gaacaaaatg	aacagcatga	acaagctgcc	ttctgtgagc
1321	cagcttatca	accctcagca	gcgcaacgcc	ctcactccta	caaccattcc	tgatggcatg
1381	ggagccaaca	ttcccatgat	gggcacccac	atgccaatgg	ctggagacat	gaatggactc
1441	agccccaccc	aggcactccc	tcccccactc	tccatgccat	ccacctccca	ctgcacaccc
1501	ccacctccgt	atcccacaga	ttgcagcatt	gtcagtttct	tagcgaggtt	gggctgttca
1561	tcatgtctgg	actatttcac	gacccagggg	ctgaccacca	tctatcagat	tgagcattac
1621	tccatggatg	atctggcaag	tctgaaaatc	cctgagcaat	ttcgacatgc	gatctggaag
1681	ggcatcctgg	accaccggca	gctccacgaa	ttctcctccc	cttctcatct	cctgcggacc
1741	ccaagcagtg	cctctacagt	cagtgtgggc	tccagtgaga	cccggggtga	gcgtgttatt
1801	gatgctgtgc	gattcaccct	ccgccagacc	atctctttcc	caccccgaga	tgagtggaat
1861	gacttcaact	ttgacatgga	tgctcgccgc	aataagcaac	agcgcatcaa	agaggagggg
1921	gagtga					

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix B

Homo sapiens TAp63 alpha amino acid sequence, coded by GenBank accession number AF075430

(641 amino acids)

1	atg	tcc	cag	agc	aca	cag	aca	aat	gaa	ttc	ctc	agt	cca	gag
	M	S	Q	S	T	Q	T	N	E	F	L	S	P	E
15	gtt	ttc	cag	cat	atc	tgg	gat	ttt	ctg	gaa	cag	cct	ata	tgt
	V	F	Q	H	I	W	D	F	L	E	Q	P	I	C
29	tca	gtt	cag	ccc	att	gac	ttg	aac	ttt	gtg	gat	gaa	cca	tca
	S	V	Q	P	I	D	L	N	F	V	D	E	P	S
43	gaa	gat	ggt	gcg	aca	aac	aag	att	gag	att	agc	atg	gac	tgt
	E	D	G	A	T	N	K	I	E	I	S	M	D	C
57	atc	cgc	atg	cag	gac	tcg	gac	ctg	agt	gac	ccc	atg	tgg	cca
	I	R	M	Q	D	S	D	L	S	D	P	M	W	P
71	cag	tac	acg	aac	ctg	ggg	ctc	ctg	aac	agc	atg	gac	cag	cag
	Q	Y	T	N	L	G	L	L	N	S	M	D	Q	Q
85	att	cag	aac	ggc	tcc	tcg	tcc	acc	agt	ccc	tat	aac	aca	gac
	I	Q	N	G	S	S	S	T	S	P	Y	N	T	D
99	cac	gcg	cag	aac	agc	gtc	acg	gcg	ccc	tcg	ccc	tac	gca	cag
	H	A	Q	N	S	V	T	A	P	S	P	Y	A	Q
113	ccc	agc	tcc	acc	ttc	gat	gct	ctc	tct	cca	tca	ccc	gcc	atc
	P	S	S	T	F	D	A	L	S	P	S	P	A	I
127	ccc	tcc	aac	acc	gac	tac	cca	ggc	ccg	cac	agt	ttc	gac	gtg
	P	S	N	T	D	Y	P	G	P	H	S	F	D	V
141	tcc	ttc	cag	cag	tcg	agc	acc	gcc	aag	tcg	gcc	acc	tgg	acg
	S	F	Q	Q	S	S	T	A	K	S	A	T	W	T
155	tat	tcc	act	gaa	ctg	aag	aaa	ctc	tac	tgc	caa	att	gca	aag
	Y	S	T	E	L	K	K	L	Y	C	Q	I	A	K
169	aca	tgc	ccc	atc	cag	atc	aag	gtg	atg	acc	cca	cct	cct	cag
	T	C	P	I	Q	I	K	V	M	T	P	P	P	Q

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix B (continued)

Homo sapiens TAp63 alpha amino acid sequence, coded by GenBank accession number AF075430

(641 amino acids)

183	gga	gct	gtt	atc	cgc	gcc	atg	cct	gtc	tac	aaa	aaa	gct	gag
	G	A	V	I	R	A	M	P	V	Y	K	K	A	E
197	cac	gtc	acg	gag	gtg	gtg	aag	cgg	tgc	ccc	aac	cat	gag	ctg
	H	V	T	E	V	V	K	R	C	P	N	H	E	L
211	agc	cgt	gaa	ttc	aac	gag	gga	cag	att	gcc	cct	cct	agt	cat
	S	R	E	F	N	E	G	Q	I	A	P	P	S	H
225	ttg	att	cga	gta	gag	ggg	aac	agc	cat	gcc	cag	tat	gta	gaa
	L	I	R	V	E	G	N	S	H	A	Q	Y	V	E
239	gat	ccc	atc	aca	gga	aga	cag	agt	gtg	ctg	gta	cct	tat	gag
	D	P	I	T	G	R	Q	S	V	L	V	P	Y	E
253	cca	ccc	cag	gtt	ggc	act	gaa	ttc	acg	aca	gtc	ttg	tac	aat
	P	P	Q	V	G	T	E	F	T	T	V	L	Y	N
267	ttc	atg	tgt	aac	agc	agt	tgt	gtt	gga	ggg	atg	aac	cgc	cgt
	F	M	C	N	S	S	C	V	G	G	M	N	R	R
281	cca	att	tta	atc	att	gtt	act	ctg	gaa	acc	aga	gat	ggg	caa
	P	I	L	I	I	V	T	L	E	T	R	D	G	Q
295	gtc	ctg	ggc	cga	cgc	tgc	ttt	gag	gcc	cgg	atc	tgt	gct	tgc
	V	L	G	R	R	C	F	E	A	R	I	C	A	C
309	cca	gga	aga	gac	agg	aag	gcg	gat	gaa	gat	agc	atc	aga	aag
	P	G	R	D	R	K	A	D	E	D	S	I	R	K
323	cag	caa	gtt	tcg	gac	agt	aca	aag	aac	ggt	gat	ggt	acg	aag
	Q	Q	V	S	D	S	T	K	N	G	D	G	T	K
337	cgc	ccg	ttt	cgt	cag	aac	aca	cat	ggt	atc	cag	atg	aca	tcc
	R	P	F	R	Q	N	T	H	G	I	Q	M	T	S
351	atc	aag	aaa	cga	aga	tcc	cca	gat	gat	gaa	ctg	tta	tac	tta
	I	K	K	R	R	S	P	D	D	E	L	L	Y	L

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix B (continued)

Homo sapiens TAp63 alpha amino acid sequence, coded by GenBank accession number AF075430
(641 amino acids)

365	cca	gtg	agg	ggc	cgt	gag	act	tat	gaa	atg	ctg	ttg	aag	atc
	P	V	R	G	R	E	T	Y	E	M	L	L	K	I
379	aaa	gag	tcc	ctg	gaa	ctc	atg	cag	tac	ctt	cct	cag	cac	aca
	K	E	S	L	E	L	M	Q	Y	L	P	Q	H	T
393	att	gaa	acg	tac	agg	caa	cag	caa	cag	cag	cag	cac	cag	cac
	I	E	T	Y	R	Q	Q	Q	Q	Q	Q	H	Q	H
407	tta	ctt	cag	aaa	cag	acc	tca	ata	cag	tct	cca	tct	tca	tat
	L	L	Q	K	Q	T	S	I	Q	S	P	S	S	Y
421	ggt	aac	agc	tcc	cca	cct	ctg	aac	aaa	atg	aac	agc	atg	aac
	G	N	S	S	P	P	L	N	K	M	N	S	M	N
435	aag	ctg	cct	tct	gtg	agc	cag	ctt	atc	aac	cct	cag	cag	cgc
	K	L	P	S	V	S	Q	L	I	N	P	Q	Q	R
449	aac	gcc	ctc	act	cct	aca	acc	att	cct	gat	ggc	atg	gga	gcc
	N	A	L	T	P	T	T	I	P	D	G	M	G	A
463	aac	att	ccc	atg	atg	ggc	acc	cac	atg	cca	atg	gct	gga	gac
	N	I	P	M	M	G	T	H	M	P	M	A	G	D
477	atg	aat	gga	ctc	agc	ccc	acc	cag	gca	ctc	cct	ccc	cca	ctc
	M	N	G	L	S	P	T	Q	A	L	P	P	P	L
491	tcc	atg	cca	tcc	acc	tcc	cac	tgc	aca	ccc	cca	cct	ccg	tat
	S	M	P	S	T	S	H	C	T	P	P	P	P	Y
505	ccc	aca	gat	tgc	agc	att	gtc	agt	ttc	tta	gcg	agg	ttg	ggc
	P	T	D	C	S	I	V	S	F	L	A	R	L	G
519	tgt	tca	tca	tgt	ctg	gac	tat	ttc	acg	acc	cag	ggg	ctg	acc
	C	S	S	C	L	D	Y	F	T	T	Q	G	L	T
533	acc	atc	tat	cag	att	gag	cat	tac	tcc	atg	gat	gat	ctg	gca
	T	I	Y	Q	I	E	H	Y	S	M	D	D	L	A

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix B (continued)

Homo sapiens TAp63 alpha amino acid sequence, coded by GenBank accession number AF075430

(641 amino acids)

547	agt	ctg	aaa	atc	cct	gag	caa	ttt	cga	cat	gcg	atc	tgg	aag
	S	L	K	I	P	E	Q	F	R	H	A	I	W	K
561	ggc	atc	ctg	gac	cac	cgg	cag	ctc	cac	gaa	ttc	tcc	tcc	cct
	G	I	L	D	H	R	Q	L	H	E	F	S	S	P
575	tct	cat	ctc	ctg	cgg	acc	cca	agc	agt	gcc	tct	aca	gtc	agt
	S	H	L	L	R	T	P	S	S	A	S	T	V	S
589	gtg	ggc	tcc	agt	gag	acc	cgg	ggt	gag	cgt	gtt	att	gat	gct
	V	G	S	S	E	T	R	G	E	R	V	I	D	A
603	gtg	cga	ttc	acc	ctc	cgc	cag	acc	atc	tct	ttc	cca	ccc	cga
	V	R	F	T	L	R	Q	T	I	S	F	P	P	R
617	gat	gag	tgg	aat	gac	ttc	aac	ttt	gac	atg	gat	gct	cgc	cgc
	D	E	W	N	D	F	N	F	D	M	D	A	R	R
631	aat	aag	caa	cag	cgc	atc	aaa	gag	gag	ggg	gag	tga		
	N	K	Q	Q	R	I	K	E	E	G	E	Stop		

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix C

The previously reported SNPs of *TP63* found in the study

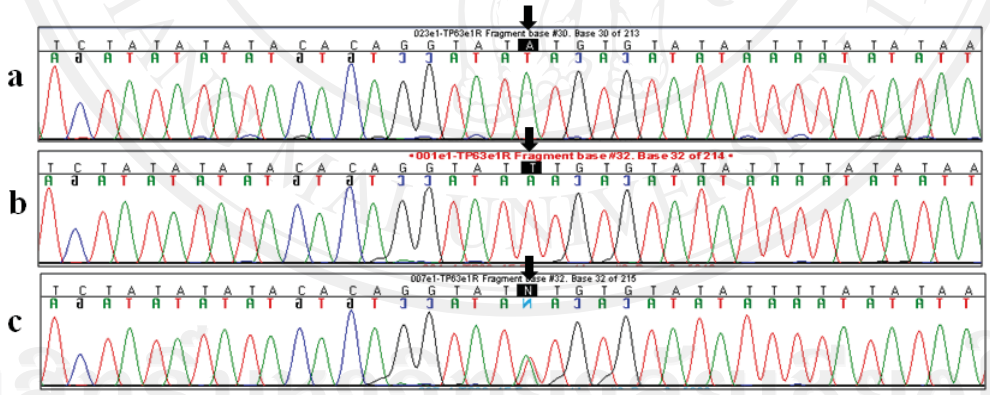
1. RefSNP ID: rs28673064; dbSNP Database (Appendix C.1)

a. This SNP was located in 5'UTR of *TP63* in 12 samples, including 5 heterozygous and 7 homozygous states.

b. HGVS Names:

i. NG_007550.1: g.5032A>T

ii. NM_003722.4: c.-58A>T



Appendix C.1 Chromatogram of RefSNP ID: rs28673064: (a) Normal sequence. (b) A heterozygous mutation of A>T within 5'UTR. (c) A homozygous SNP of A>T within 5'UTR. Arrows indicate the position of the changes. (NM_003722.4: c.-58A>T) (RefSNP ID: rs28673064; dbSNP Database).

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix C (continued)

The previously reported SNPs of *TP63* found in the study

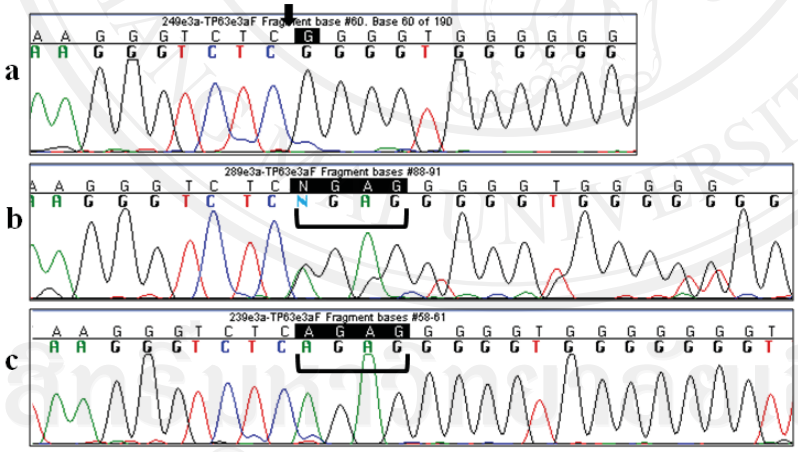
2. RefSNP ID: rs62702062; dbSNP Database **(Appendix C.2)**

a. This SNP was located in Intron 3 of *TP63* in 12 samples, including 8 heterozygous and 4 homozygous states.

b. HGVS Names:

i. NG_007550.1: g.163304_163305ins4

ii. NM_003722.4: c.325-18542_325-18541ins4



Appendix C.2 Chromatogram of RefSNP ID: rs62702062: (a) Normal sequence. (b) A heterozygous mutation of AGAG insertion within intron 3. (c) A homozygous SNP of AGAG insertion within intron 3. The arrow indicates the position of insertion. (NM_003722.4: c.325-18542_325-18541ins4) (RefSNP ID: rs62702062; dbSNP Database).

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix C (continued)

The previously reported SNPs of *TP63* found in the study

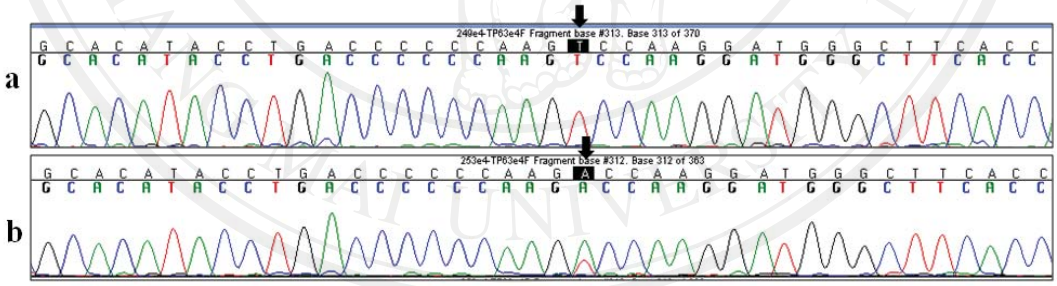
3. RefSNP ID: rs34429985; dbSNP Database **(Appendix C.3)**

a. This SNP was located in intron 4 of *TP63* in 2 samples, including 2 heterozygous states.

b. HGVS Names:

i. NG_007550.1: g.182139T>A

ii. NM_003722.4: c.579+39G>T



Appendix C.3 Chromatogram of RefSNP ID: rs34429985: (a) Normal sequence. (b) A heterozygous SNP of T>A within intron 4. Arrows indicate the position of the change. (NM_003722.4: c.579+39G>T) (RefSNP ID: rs34429985; dbSNP Database).

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix C (continued)

The previously reported SNPs of *TP63* found in the study

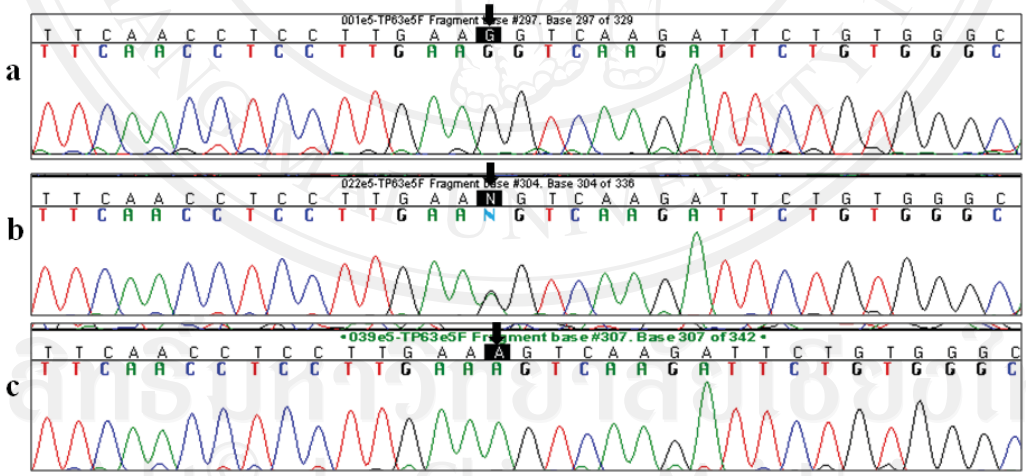
4. RefSNP ID: rs2276792; dbSNP Database **(Appendix C.4)**

    a. This SNP was located in intron 5 of *TP63* in 3 samples, including 2 heterozygous and 1 homozygous states.

    b. HGVS Names:

        i. NG_007550.1: g.238034G>A

        ii. NM_003722.4: c.766+42G>A



Appendix C.4 Chromatogram of RefSNP ID: rs2276792: (a) Normal sequence. (b) A heterozygous SNP of G>A within intron 5. (c) A homozygous SNP of G>A within intron 5. Arrows indicate the position of the changes. (NM_003722.4: c.766+42G>A) (RefSNP ID: rs2276792; dbSNP Database).

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix C (continued)

The previously reported SNPs of *TP63* found in the study

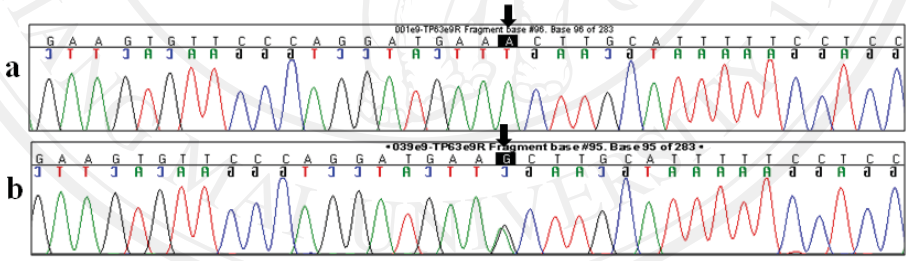
5. RefSNP ID: rs6789961; dbSNP Database **(Appendix C.5)**

    a. This SNP was located in intron 8 of *TP63* in 5 samples, including 5 heterozygous states.

    b. HGVS Names:

        i. NG_007550.1: g.242876A>G

        ii. NM_003722.4: c.1130-22C>A



Appendix C.5 Chromatogram of RefSNP ID: rs6789961: (a) Normal sequence. (b) A heterozygous SNP of A>G within intron 8. Arrows indicate the position of the change. (NM_003722.4: c.1130-22C>A) (RefSNP ID: rs6789961; dbSNP Database).

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix C (continued)

The previously reported SNPs of *TP63* found in the study

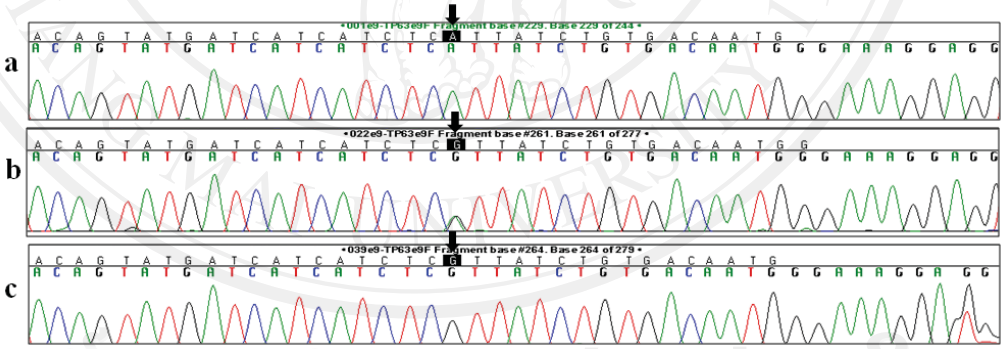
6. RefSNP ID: rs6790167; dbSNP Database **(Appendix C.6)**

    a. This SNP was located in intron 9 of *TP63* in 10 samples, including 8 heterozygous and 2 homozygous states.

    b. HGVS Names:

        i. NG_007550.1: g.243059A>G,

        ii. NM_003722.4: c.1212+79A>G



Appendix C.6 Chromatogram of RefSNP ID: rs6790167: (a) Normal sequence. (b) A heterozygous SNP of A>G within intron 9. (c) A homozygous SNP of A>G within intron 9. Arrows indicate the position of the changes. (NM_003722.4: c.1212+79A>G) (RefSNP ID: rs6790167; dbSNP Database).

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix C (continued)

The previously reported SNPs of *TP63* found in the study

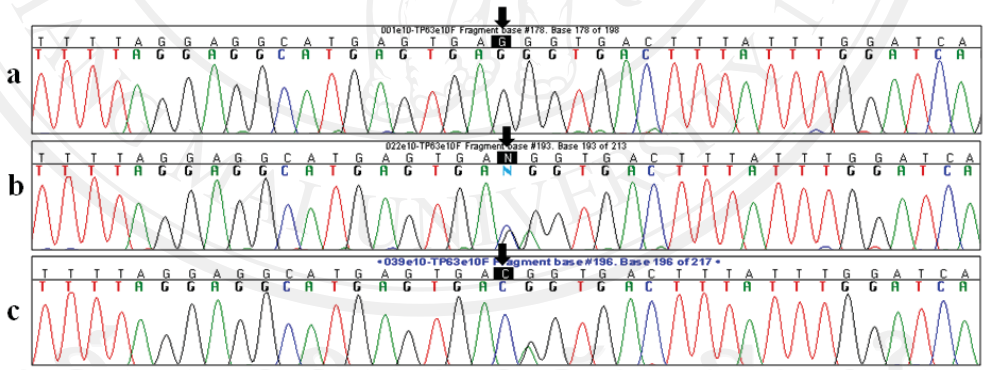
7. RefSNP ID: rs9840359; dbSNP Database **(Appendix C.7)**

    a. This SNP was located in intron 10 of *TP63* in 11 samples, including 9 heterozygous and 2 homozygous states.

    b. HGVS Names:

        i. NG_007550.1: g.246609G>C,

        ii. NM_003722.4: c. 1349+40A>G



Appendix C.7 Chromatogram of RefSNP ID: rs9840359: (a) Normal sequence. (b) A heterozygous SNP of G>C within intron 10. (c) A homozygous SNP of G>C within intron 10. Arrows indicate the position of the changes. (NM_003722.4: c.1349+40A>G) (RefSNP ID: rs9840359; dbSNP Database).

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix C (continued)

The previously reported SNPs of *TP63* found in the study

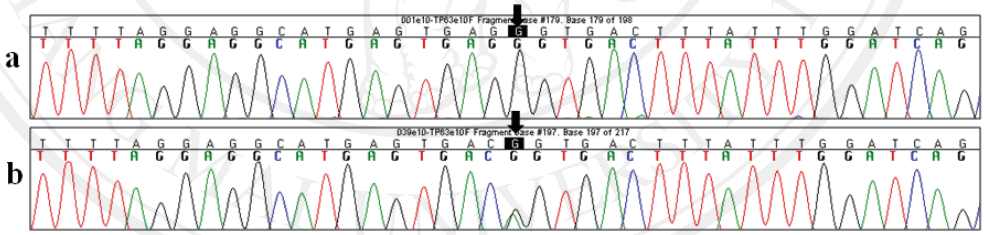
8. RefSNP ID: rs9840360; dbSNP Database **(Appendix C.8)**

    a. This SNP was located in intron 10 of *TP63* in 1 sample, a heterozygous state.

    b. HGVS Names :

        i. NG_007550.1: g.246610G>A

        ii. NM_003722.4: c. 1349+41A>G



Appendix C.8 Chromatogram of RefSNP ID: rs9840360: (a) Normal sequence. (b) A heterozygous SNP of G>A within intron 10. Arrows indicate the position of the change. (NM_003722.4: c.1349+41A>G) (RefSNP ID: rs9840360; dbSNP Database).

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright © by Chiang Mai University
All rights reserved

Appendix C (continued)

The previously reported SNPs of *TP63* found in the study

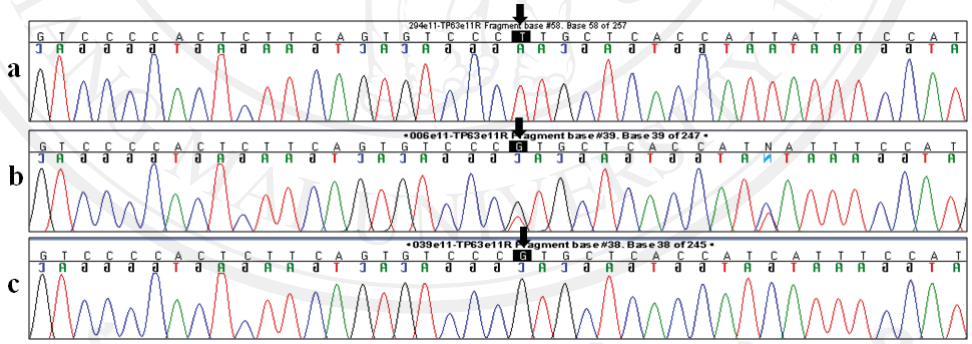
9. RefSNP ID: rs1554131; dbSNP Database **(Appendix C.9)**

    a. This SNP was located in intron 10 of *TP63* in 17 samples, including 9 heterozygous and 8 homozygous states.

    b. HGVS Names :

        i. NG_007550.1: g.259934T>G

        ii. NM_003722.4: c. 1350-34G>T



Appendix C.9 Chromatogram of RefSNP ID: rs1554131: (a) Normal sequence. (b) A heterozygous SNP of T>G within intron 10. (c) A homozygous SNP of T>G within intron 10. Arrows indicate the position of the changes. (NM_003722.4: 1350-34G>T) (RefSNP ID: rs1554131; dbSNP Database).

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix C (continued)

The previously reported SNPs of *TP63* found in the study

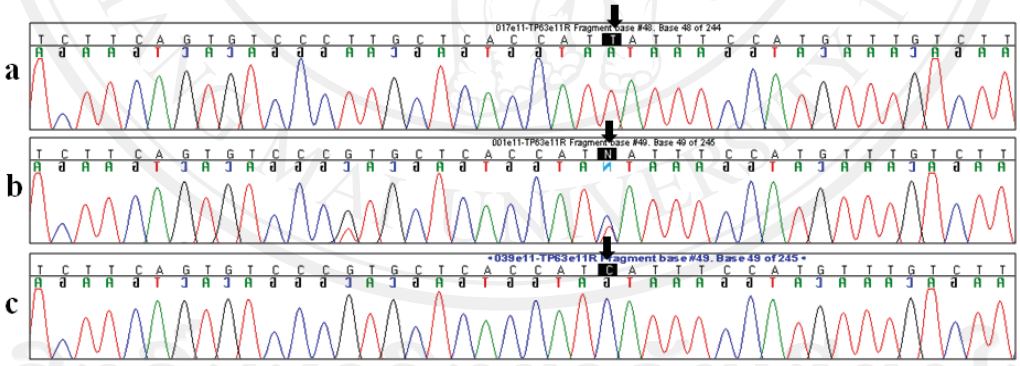
10. RefSNP ID: rs1345186; dbSNP Database **(Appendix C.10)**

a. This SNP was located in intron 10 of *TP63* in 21 samples, including 9 heterozygous and 12 homozygous states.

b. HGVS Names :

i. NG_007550.1: g.259945T>C

ii. NM_003722.4: c. 1350-23G>T



Appendix C.10 Chromatogram of RefSNP ID: rs1345186: (a) Normal sequence. (b) A heterozygous SNP of T>C within intron 10. (c) A homozygous SNP of T>C within intron 10. Arrows indicate the position of the changes. (NM_003722.4: 1350-23G>T) (RefSNP ID: rs1345186; dbSNP Database).

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix D

List of chemicals and materials were used in the study

Chemicals and materials	Source
Absolute ethanol	Merck KGaA, Darmstadt, Germany
Agarose (Molecular Biology Grade)	Vivantis, Selangor DE, Malaysia
Ammonium bicarbonate (Molecular Biology Grade)	Sigma-Aldrich Quimica S. A. Toluca, Mexico
Ammonium chloride (Molecular Biology Grade)	Sigma-Aldrich Japan K.K. Tokyo, Japan
AmpliTaq Gold® Polymerase	Applied Biosystems, USA
Boric acid (Molecular Biology Grade)	Vivantis, Selangor DE, Malaysia
Deoxynucleoside triphosphate (dNTPs) Mix (each 10 mM)	Fermentas UAB, Vilnius, Lithuania
EDTA, Disodium Salt, Dihydrate (Molecular Biology Grade)	Vivantis, Selangor DE, Malaysia
GeneRuler™ 100 bp Plus DNA Ladder, ready-to-us (Loading dye +Ladder dye) #SM0323	Fermentas UAB, Vilnius, Lithuania
Isopropanol	Merck KGaA, Darmstadt, Germany
$MgCl_2$ solution	Applied Biosystems Inc, Foster City, CA, USA
Oligonucleotide primers	1st BASE Pte Ltd, Singapore
PCR Buffer II (10x)	Applied Biosystems Inc, Foster City, CA, USA
Proteinase K (20 mg/mL)	New England BioLab, Ipswich, MA, USA

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix D (continued)

List of chemicals and materials were used in the study

Chemicals and materials	**Source**
SYBR® Safe DNA gel stain 10,000x concentrate in DMSO	Invitrogen Inc., Carlsbad, CA, USA
Sodium Azide (Molecular Biology Grade)	USB Corporation, Cleveland, OH, USA
Sodium chloride (Molecular Biology Grade)	Sigma-Aldrich Corp., St. Louis, MO, USA
Sodium dodecyl sulfate (SDS) (Molecular Biology Grade)	USB Corporation, Cleveland, OH, USA
Sterile Water (for injection)	General Hospital Products Public, Thailand
Tris base (Molecular Biology Grade)	Vivantis, Selangor ED, Malaysia
Tris-EDTA (TE) Buffer (50x)	USB Corporation, Cleveland, OH, USA

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix E

List of instruments were used in the study

Instruments	Source
Adjustable micropipette (Pipet-Lite™)	Rainin Instrument LLC, Oakland, CA, USA
Adjustable Pipette (Rota-Filler 3000™)	Heathrow Scientific®, Vernon Hills, IL, USA
Aluminum Foil	Alcoa, Pittsburgh, PA, USA
BD Vacutainer® (EDTA anticoagulant)	Becton, Dickinson and Company (BD), Franklin Lakes, NJ, USA
Beaker : 100 mL, 250 mL, 600 mL, 1 L	ISOLAB Laborgeräte GmbH, Wertheim, Germany
Beckman Centrifuge	Beckman Coulter, Inc., Brea, CA, USA
Centrifuge tube 15 mL (#430052)	Corning Incorporated, Corning, NY, USA
Gloves	Sempermed®, Thailand
Hettich Centrifuge (MIKRO 200)	Andreas Hettich GmbH & Co.KG, Tuttlingen, Germany
Microcentrifuge tube : 0.2 mL, 1.5 mL	Axygen Scientific Inc, Union City, CA, US
Mini-Centrifuge (Sprout™)	Heathrow Scientific®, Vernon Hills, IL, USA
Molecular Imager Gel Doc XR and System	BIO-RAD, Hercules, CA, USA
Needle	NIPRO, THAILAND
Parafilm	PECHINEY Plastic Packaging Inc, Chicago, IL, USA
Pipette tip : 10 µL, 200 µL, 1,000 µL	Axygen Scientific Inc, Union City, CA, US

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix E (continued)

List of instruments were used in the study

Instruments	**Source**
Polypropylene 96-Well PCR Plate with flat top and printed grid (0.2 mL)	Labcon North America, Petaluma, CA, USA
PowerPac™ Basic Power Supply	BIO-RAD, Hercules, CA, USA
Power supply model UPS ACURA plus1500	Leonics, Thailand
PYREX® Erlenmeyer flask 125 mL	Corning, Lowell, MA, USA
Reagent bottle : 50 mL, 100 mL, 250 mL, 500 mL, 1 L, 2 L	ISOLAB Laborgeräte GmbH, Wertheim, Germany SCHOTT AG, Mainz, Germany
Refrigerator-Freezers	Mitsubishi, Thailand
Sequencher 4.8	Genecodes, Ann Arbor, MI, USA
Stripette 10 mL Costar® (#4488)	Corning Incorporated, Corning, NY, USA
Sub-Cell® GT Agarose Gel Electrophoresis System	BIO-RAD, Hercules, CA, USA
Syringe	NIPRO, THAILAND
Vortex Mixer	Labnet International Inc., Woodbridge, NJ, USA
Weighing Machine (#PL303)	Mettler-Toledo, Inc., Columbus, OH, USA

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix F

List of solutions and buffers were used in the study

1. Red cell lysis buffer (1 L)

1 mM NH_4HCO_3	0.08 g
115 mM NH_4Cl	6.15 g
Add distilled water to	1 L

Sterilize the solution by autoclaving and store at 4°C.

2. White cell lysis buffer (100 mL)

100 mM Tris-Cl	1.57 g
40 mM EDTA	1.5 g
(or 8 µL 0.5 M)	
50 mM NaCl	0.3 g
0.2% SDS	0.2 g
0.05% Sodium Azide	0.05 g
Add distilled water to	100 mL

Sterilize the solution by autoclaving and store at room temperature.

3. 6 M NaCl Solution (10 mL)

Sodium chloride	3.5 g
Add distilled water to	10 mL

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

Appendix F (continued)

List of solutions and buffers were used in the study

4. 1x Tris-EDTA (TE) buffer

50x TE buffer, pH 7.5	1 mL
Add distilled water to	50 mL

Mix the solution and store at room temperature.

5. 10x Tris-Borate-EDTA (TBE) buffer (1 L)

Tris base	108 g
Boric acid	55 g
Na_2EDTA	7.4 g
Add distilled water to	1 L

The pH is 8.3 and requires no adjustment.

Mix the solution and store at room temperature.

6. 1% agarose gel (w/v)

Agarose	0.70 g
1x TBE buffer	70 mL

Dissolve by heating in microwave oven and occasional mix until no granules of agarose are visible.

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved

CURRICULUM VITAE

Name	Miss Warissara Sripathomsawat
Date of birth	July 15, 1981
Education	
1993-1998	Certificate of secondary and high school at The Demonstrate of Silapakorn University, Nakorn Pathom, Thailand
1999-2004	D.D.S. (Dentistry), Faculty of Dentistry, Chiang Mai University, Chiang Mai, Thailand

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่
Copyright© by Chiang Mai University
All rights reserved