

conservation	1	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
<i>SCPP6'PP</i>	*	***	*	*	*	*	*	*	*	*	*	*	*	*	*	*
<i>SCPP6'LW</i>	AGGCTTAT	A	T	G	T	G	C	T	A	G	C	G	G	A	T	G
<i>SCPP6'DR</i>	AGGCTTAT	A	G	C	G	T	G	C	T	A	G	C	G	A	T	.
<i>SCPP6'CI</i>	AGGCTTAT	A	T	G	T	G	A	T	G	C	T	G	G	A	T	AAAGGAATC
<i>SCPP6-C1'CC</i>	AGGCTTAT	A	G	C	G	T	G	C	T	A	G	C	T	C	A	T
<i>SCPP6-C2'CC</i>	AGGCTTCT	A	A	C	T	G	C	T	G	C	T	G	G	A	T	TATTG
<i>SCPP6-C1'SG</i>	... CTTCA	A	G	C	G	T	G	C	T	G	A	C	A	T	G	ATGGAATC
<i>SCPP6-C2'SG</i>	... CTA	G	C	G	T	C	T	G	C	T	G	A	G	T	C	ATGGAT
<i>SCPP6-C1'SR</i>	AGGCTTCA	A	G	C	T	G	C	T	G	T	T	C	A	G	T	ATGGAAATC
<i>SCPP6-C2'SR</i>	AAGACAGT	T	A	T	T	T	A	T	T	G	C	T	G	C	G	GTGTCG
<i>SCPP6-C1'SA</i>	AGGCTTCA	A	G	C	T	G	C	T	G	T	T	C	A	G	T	ATGGAATC
<i>SCPP6-C2'SA</i>	... . . . C	T	A	G	C	T	G	C	T	G	C	T	G	A	G	TATTG

<i>conservation</i>	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	
<i>SCPP6'PP</i>	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	157
<i>SCPP6'LW</i>	.	GTCCAAGCCCCATC	ATGTGCCA	CAA	CAGTT	CAGCCTAA	ATCTCCC	AAAGTT	CCCTCTGG	TCT	TGAGCAACAG	CTGGCCA	.	.	.	.	151
<i>SCPP6'DR</i>	A	TAAAATTCTAAC	CTCAT	TATAG	GAGACT	TGCGGGT	TAGGGTTAGGAG	TGCCCTCTGG	TCTC	TAGCAACAG	CTGGCCA	.	.	.	.	.	159
<i>SCPP6'CI</i>	.	GCTGTCAGTGGGAG	ATATG	...	CAA	CAGTT	CAGCCTGG	ATCTCCT	AGAATGCTCTCTGG	ACTT	TATCACAA	AGGTGCC	.	.	.	.	151
<i>SCPP6-C1'CC</i>	.	GTACAAGC	AAAAAC	ATGTGCCA	CG	CA	GCAGTT	CAGCCTAA	ATCTCCC	CAGAGTG	.....	....	CCT	TAGACACAC	CTGGCCA	.	0
<i>SCPP6-C2'CC</i>	.	GTACAAGCCCCACC	ATGTGCCATT	GCAGTT	CTGCC	TGA	ATCTCCC	CAGAATGCTCTCTGG	TCTC	TAGCC	CACAT	CTGGCCA	.	.	.	.	160
<i>SCPP6-C1'SG</i>	A	GTCCCAGTGGGAG	ATATGCCA	GC	CA	GG	GAACCCC	AGTGATA	ACAGTCCTCA	CTGCC	TGG	ATCTC	TAGGCC	CACAT	CTGGCCA	.	157
<i>SCPP6-C2'SG</i>	.	TTGCTCAATTGATA	AAAACCA	GCAGTT	CAGCCTG	AA	CTCCC	CAGAATGCTCTCTGG	TCTC	TAGCC	CACAT	CTGGCCA	.	.	.	.	151
<i>SCPP6-C1'SR</i>	A	GTCCCAGTGGGAG	ATATGCCA	GCACAGG	GAACCCC	AGTGATA	ACAGTCCTCA	CTGCC	TGG	ATCTC	TAGGCC	CACAT	AT	CTGGCCA	.	163	
<i>SCPP6-C2'SR</i>	.	TCATTATCCAGCTGG	ATTCTGAT	GAGTT	CAGCCTG	AA	CTCCC	CAGAATGCTCTCTGG	TCTC	TAGCC	CACAT	CTGGCCA	.	.	.	.	160
<i>SCPP6-C1'SA</i>	A	GTCCCAGTGGGAG	ATATGCCA	GC	CA	GG	GAACCCC	AGTGATA	ACAGTCCTCA	CTGCC	TGG	ATCTC	TAGGCC	CACAT	AGCTGGCCA	.	163
<i>SCPP6-C2'SA</i>	.	GTACAAGCCCCAAC	ATGTGCCA	CA	GCAGTT	CAGCCTG	AA	CTCCC	CAGAATGCTCTCTGG	TCTC	TAGCC	CACAT	CTGGCCA	.	.	.	151

	240	245	250	255	260	265	270	275	280	285	290	295	300	305	310	
conservation	*	!	*	***	*	**	!	*	!	!	*	!	*	!	*	**
SCPP6'PP	T	A	T	T	C	T	C	C	C	G	C	A	A	T	C	T
SCPP6'LW	T	A	T	T	C	T	C	C	C	G	C	A	A	T	C	T
SCPP6'DR	T	A	T	.	.	T	C	T	C	G	A	C	A	T	C	T
SCPP6'CI	T	A	T	C	C	T	C	C	A	G	C	A	T	C	C	CC
SCPP6-C1'CC	.	.	.	.	.	.	C	A	G	T	T	T	C	A	G	T
SCPP6-C2'CC	T	A	T	C	C	T	A	T	C	G	A	T	T	C	T	TC
SCPP6-C1'SR	T	A	T	C	C	T	C	C	A	G	C	A	T	C	T	TC
SCPP6-C2'SR	A	T	C	C	T	A	T	C	C	G	A	C	A	T	C	TT
SCPP6-C1'SA	T	A	T	C	C	T	C	C	A	G	C	A	A	T	C	TC
SCPP6-C2'SA	A	T	C	C	T	A	T	C	C	G	A	G	A	C	T	AG

	315	320	325	330	335	340	345	350	355	360	365	370		
<i>conservation</i>	!	!	!	!	*	!	!	*	*	*	*	*	!	
<i>SCPP6'PP</i>	CTATGGAGTGCCTGTTTCCAGCACCGCATCATAT...	CAACAAATTCCTGCTAATTC...										GTTC	CAG	373
<i>SCPP6'LW</i>	CTATGGAGTGCCTGTTTCCAGCACCGCAACCGTCT...	CAACAAATTCCTGCTAATGCA...										GTTA	CAG	367
<i>SCPP6'DR</i>	CTATGGAGTGTCTGCCTTCCAGCATGCTGCATCC...	CAACAATATCCTGCTAATGCA...										GCTCC	CAG	361
<i>SCPP6'CI</i>	CTATGGAGTGCCTGTTTCCAGCACCGAACCTCT...	CAACAAATTCCTGCAAAATGTA...										GTTCC	CAG	355
<i>SCPP6-C1'CC</i>	CTATGGAGTGCCTGCTTCCAGCATGCAACATCT...	CAGCAAATTCCTGCTAATGCA...										GTTCC	CAG	112
<i>SCPP6-C2'CC</i>	CTATGGAGTGCCTGTTCTAGCACCGAACATCTCAA...	CAACAAATATACTGCTAATGCA...										GTTCC	CAG	379
<i>SCPP6-C1'SG</i>	CTATGGAGTGCCTGTTTCCAGCATTCGCTTGG...	ATAAAAGGTCTGCTAAATGTAATGTAATTCC...												382
<i>SCPP6-C2'SG</i>	CTATGGAGTGCCTGTTTCCAGCACACATCT...	CAACAAATTCCTGCTAATGCA...										GTTCC	CAG	346
<i>SCPP6-C1'SR</i>	CTATGGAGTGCCTGTTTCCAGCATGTAAACATCTTCAAGAAACACT...	CAACAAATTCCTGCTAATGCA...										CTGTTG		394
<i>SCPP6-C2'SR</i>	CTATGGAGTGCCTGTTTCCAGCACACACATCT...	CAACAAATTCCTGCGAATGCA...										GTTCC	CAG	382
<i>SCPP6-C1'SA</i>	AGT...TTTCCATCATTCAATTGTGTACAATATCAGAAATA...	TCTGAAGGGAACCCGCT...												394
<i>SCPP6-C2'SA</i>	CTATGGAGTGCCTGTTTCCAGCACACACATCT...	CAACAAATTCCTGCTAATGCA...										GTTCC	CAG	367

	375	380	385	390	395	400	405	410	415	420	425	430	435	440	445	450		
<i>conservation</i>	!	*	!	*	*	*	!	*	!	*	!	*	!	*	!	*	!	
<i>SCPP6'PP</i>	CTT	CACA	ACTATT	AATGGC	CACAAA	ACAA	ACA	CACA	AGC	CAA	ATGCTCAT	AA	ATGCATCCAT	ACCAGCCT	CAGCAAGAA		453	
<i>SCPP6'LW</i>	CTT	CACA	ACCATT	CATGGC	CACAAA	ACAA	ACA	CACA	AGC	CAC	.	.	CAA	ATGCATCCA	ACCAGCCT	CAGCAACAA		438
<i>SCPP6'DR</i>	CTT	TACGGC	CAGCA	AGACC	CACAA	CAGGG	C	AA	ATGCAC	ACCA	AA	TGCGT	CAGCCT	CAACAA	ACAA	ACAA	441	
<i>SCPP6'CI</i>	CTT	CACAGT	CATT	AATGGC	CACAAA	ACAA	ACA	ACACA	AGC	CAA	ATGCTCAC	CAA	ATGCATCCA	AA	ACCAACCT	CAGCAACAA		435
<i>SCPP6-C1'CC</i>	CTT	CACAGC	CCATT	GATG	A	CAA	AA	ACAA	ACACA	AGC	CT	.	.	CTA	.	AACCA	GCTCAGCAACAG	174
<i>SCPP6-C2'CC</i>	CTT	CACAGC	CCATT	AATG	ACACAA	CACAA	A	TAA	CACACA	AGC	CT	.	.	CTA	.	AACCA	GCTCAGCAACAA	441
<i>SCPP6-C1'SG</i>	CTT	CACAGC	CCATT	AATG	ACAA	AA	AA	ACAA	ACACA	AGC	CT	.	.	CTA	.	AACCA	GCTCAGCAACAG	444
<i>SCPP6-C2'SG</i>	CTT	CACAGC	CCATT	AATG	ACACAA	CACAA	A	CA	ACACA	AGC	CT	.	.	CTA	.	AACCA	GCTCAGCAATAT	408
<i>SCPP6-C1'SR</i>	CCT	CATT	CCATT	AATG	ACACAA	CACAA	A	CA	ACACA	AGC	CT	.	.	CTA	.	AACCA	GCTCAGCAACAG	456
<i>SCPP6-C2'SR</i>	CTT	CACAGC	CCATT	AATG	ACACAA	CACAA	A	CA	ACACA	AGC	CT	.	.	CTA	.	AACCA	GCTCAGCAATAT	444
<i>SCPP6-C1'SA</i>	CACTCG	ATCC	ATTAA	ATG	ACACAA	AA	AA	ACAA	ACACA	AGC	CT	.	.	CTA	.	AACCA	GCTCAGCAACAG	456
<i>SCPP6-C2'SA</i>	CTTC	CACAGC	CCATT	AATG	ATACA	ACACAA	AA	AA	ACAA	ACACA	AGC	CT	.	CTA	.	AACCA	GCTCAGCAATAT	429

conservation

455	460	465	470	475	480	485	490	495	500	505	510	515	520	
CAGGTTCAACAA			TTTCTTACATGGTCCACAGATTCAACAAACGAATGGCTGGACC	ATGGTGATT										521
CAGGTTCAACAA			TTTCTTACATGGTCCACAGACTCAACAAACGAATGGCTGGACC	CATATGGTGATT										506
CAGTTCAACCC			ATTTTTATATGGTCTCAAATGCCACAGCGAATGGCTGGATC	ATATGGTGACT										509
CAGGTTCAACAA			TTTCTTACATGGTCCACAGATTCAACAGCGAATGGCTGGACC	CATATGGCGATT										503
CAGGTTCATCAA			TTTCTTACATGGTCCACAGATTCAACAAACGAATGGCTGGACC	CATATGGTGATT										242
CAGGTATCAACACAACATTAAT	TTTATTATATTATATT		TTTCTTACATGGTCCACAAATTCAACAAACGAATGGCTGGACC	CATATGGTGATT										480
CAGGTTCATCAA			TTTCTTACATGGTCCACAAATTCAACAAACGAATGGCTGGACC	CATATGGTGATT										512
CAATCTAACAA			TTTCTTACATGGTCCACAAATTCAACAAACGAATGGCTGGACC	CATATGGTGATT										420
CAGGTTCATCAA			TTTCTTACATGGTCCACAAATTCAACAAACGAATGGCTGGACC	CATATGGTGATT										524
CAACCAAGTCAG			TTTCTTACATGGTCCACAAATTCAACAAACGAATGGCTGGAGC	CATATGGTGATT										456
CAGGTTCATCAA			TTTCTTACATGGTCCACAAATTCAACAAACGAATGGCTGGAGC	CATATGGTGATT										524
CAACCAAGTCAG														441

conservation

525	530	535	540	545	550	555	560	565	570	575	580	585	590	595	600	
GAGCTCTGAGGAAC	TTTCAGAACATGGGACAAATGGGTCC	TGTT	GACATGC	ACAT	TG	CCT	TG	C	GTT	A	GGGGCA	A	TGTGTTGC		601	
GAGCTCTGAGGAAC	TTTCAGAACATGGGAC	CGT	GTTAACATGC	ACCT	AC	TG	C	GATT	A	GGGAA	A	TGTGTTTC		519		
GAGCTCCGAGGAAC	ATTCAGAACATGGGAC	CGT	TAAACATGGG	ACATATGGGCC	ATG	TAAACATGC	ACAT	TG	C	GTT	A	GGGCA	A	GTGTTTC	580	
GCGCTCTGAGGAAC	TTTCAGTGA	CTAACCT	AAAAAGAAGACTT	TG	ATATATTG	ATATATA	TCT	CATA	ACT	TCTG	A	CCACACTG		583		
GCGCTATGAGGAAC	TTTCAGAACATGGGAC	GCT	CGTAC	TG	ACTTG	CA	AT	TG	CCT	TG	CA	TTA	AGGGCG	A	GTGTTTC	322
GCGCTATGAGGAAC	TTTCAGAACATGGGAC	GCT	CGTAC	TG	ACTTG	CA	AT	TG	CCT	TG	CA	TTA	AGGGCG	A	GTGTTTC	480
GAGCTCTGAGGAAC	TTTCAGAACATGGGAC	GCT	CGTAC	TG	ACTTG	CA	AT	TG	CCT	TG	CA	TTA	AGGGCG	A	GTGTTTC	592
GAGCTCTGAGGAAC	TTTCAGAACATGGGAC	GCT	CGTAC	TG	ACTTG	CA	AT	TG	CCT	TG	CA	TTA	AGGGCG	A	GTGTTTC	420
GAGCTATGAGGAAC	TTTCAGAACATGGGAC	GCT	CGTAC	TG	ACTTG	CA	AT	TG	CCT	TG	CA	TTA	AGGGCG	A	GTGTTTC	604
GAGCTATGAGGAAC	TTTCAGAACATGGGAC	GCT	CGTAC	TG	ACTTG	CA	AT	TG	CCT	TG	CA	TTA	AGGGCG	A	GTGTTTC	456
GAGCTATGAGGAAC	TTTCAGAACATGGGAC	GCT	CGTAC	TG	ACTTG	CA	AT	TG	CCT	TG	CA	TTA	AGGGCG	A	GTGTTTC	604
GAGCTATGAGGAAC	TTTCAGAACATGGGAC	GCT	CGTAC	TG	ACTTG	CA	AT	TG	CCT	TG	CA	TTA	AGGGCG	A	GTGTTTC	441

conservation

605	610	615	620	625	630	635	640	645	650	655	660	665	670	675	680	
CTGTAGCTGGACCAC	AACTGT	TG	TACCTG	T	TAACCCTT	AA	AGAC	CCAGCCA	AA	TACCTCC	ACATCA	AC	ACCTACCTGCC		681	
CTGTATCTGGACCTC	AAACTGT	TG	TACCCAT	TG	GGGCC	AGTAAGA	CG	CG					CCCAC	CCCCCTCCCTGCC	519	
CTGTAGCTGGACCAC	AACTGT	TG	TACCTG	T	AGCTCTT	AA	GGAC	CCAGCCA	AA	TACCTCC	ACATCA	AC	ACCTCCCTGCC		645	
TATCTTATTTTA	ATGTATG	T	ATTGGA	AT	AAACCTT	AG	CTG	CTAA	AT	CTCTA	ATTAA	AGAC	ACACAAA		393	
CTGTAGCTGGACCAC	AACTGT	TG	TACCTG	T	AGCCCTT	AA	AGACT	GTACCAAGAC	CTTCC	ACCC	AGC	AC	ACCTTT		480	
CTGTAGCTGGACCAC	AACTGT	TG	TACCTG	T	AGCCCTT	AA	AGACT	GTACCAAGAC	CTTCC	ACCC	AGC	AC	ACCTTT		666	
CTGTAGCTGGACCAC	AACTGT	TG	TACCTG	T	AGCCCTT	AA	AGACT	GTACCAAGAC	CTTCC	ACCC	AGC	AC	ACCTTT		420	
CTGTAGCTGGACCAC	AACTGT	TG	TACCTG	T	AGCCCTT	AA	AGACT	GTACCAAGAC	CTTCC	ACCC	AGC	AC	ACCTTT		678	
CTGTAGCTGGACCAC	AACTGT	TG	TACCTG	T	AGCCCTT	AA	AGACT	GTACCAAGAC	CTTCC	ACCC	AGC	AC	ACCTTT		456	
CTGTAGCTGGACCAC	AACTGT	TG	TACCTG	T	AGCCCTT	AA	AGACT	GTACCAAGAC	CTTCC	ACCC	AGC	AC	ACCTTT		678	
CTGTAGCTGGACCAC	AACTGT	TG	TACCTG	T	AGCCCTT	AA	AGACT	GTACCAAGAC	CTTCC	ACCC	AGC	AC	ACCTTT		441	

conservation

685	690	695	700	705	710	715	720	725	730	735	740	745	750	755	760	
ACTGGAATGACATT	CTCGACCAATA	T	GAGGCCAGCC	A	CTAGCAT	T	GTAGCTGTAC	CAC	CCAGAGGG	G	TCCATACT					761
ACTGGAATGACCTAC	CCGGCATTACT	TGAGCTCC	AGCAAC	CC	CAGCAT	T	ATAGCCGT	CT	CC	TAGCAGAGAT	GCCATACC					519
AATGGAATGACCTT	CTCGGGCACTACT	TGAGGTT	CAGCCACCA	AGCGT	T	GTA	GCTAC	CC	AGCTTGGG	GAT	GCCATACC					725
GAACATGAGACGTCT	TGTGAAGTTGAGCT	ACCCAGCGT	TCTAGCTG	AC	CCAGCGT	T	CTAGCTG	TAC	CC	AGTGGG	GAT	GCCATATC				743
CTGACCATTC	TGAC	CATT	TTCAGCTA	CC	CAGCAT	T	GCA	GCT	CC	AGTGGG	GAT	GCCATATC				464
CTGACCATTC	TGAC	CATT	TTGCTACCC	CGCTCAG	ATTG	GCTAA	CT	GTG	CTA	CC	AGTGGG	GAT	GCCATATC		734	
CTGACCATTC	TGAC	CATT	TTGCTACCC	CGCTCAG	ATTG	GCTAA	CT	GTG	CTA	CC	AGTGGG	GAT	GCCATATC		420	
TTGACCATTC	TGAC	CATT	TTTCAAGCT	CC	CAGCGT	T	GTA	GCT	CC	AGTGGG	GAT	GCCATATC		738		
TTGACCATTC	TGAC	CATT	TTTCAAGCT	CC	CAGCGT	T	GTA	GCT	CC	AGTGGG	GAT	GCCATATC		456		
TTGACCATTC	TGAC	CATT	TTTCAAGCT	CC	CAGCGT	T	GTA	GCT	CC	AGTGGG	GAT	GCCATATC		746		
TTGACCATTC	TGAC	CATT	TTTCAAGCT	CC	CAGCGT	T	GTA	GCT	CC	AGTGGG	GAT	GCCATATC		441		

conservation

765	770	775	780	785	790	795	800	805	810	815	820	825	830	835	840						
TGCTACTGGG	ATCCC	AT	CCAA	AA	TAATGG	AGTG	CT	GCCT	AGTAGG	ATGC	T	ATCA	AGC	AGG	ACCT	GAGCGAGT	GGCCGT				
TGCTACTGGG	ATCCC	AT	CCAA	AA	TAATGG	AGTG	CT	GCCT	AGTAGG	ATGC	T	ATCA	AGC	AGG	ACCT	GAGCGAGT	GGCCGT				
TGCTACTGGG	ATCCC	AT	CCAA	AA	TAATGG	AGTG	CT	GCCT	AGTAGG	ATGC	T	ATCA	AGC	AGG	ACCT	GAGCGAGT	GGCCGT				
TGTGACTGGG	ATCCC	AT	CCAA	AA	TAATAGAGC	ACCC	GG	CCCT	AGTAGG	ACTG	G	TAACAT	GC	AGG	ACCAT	GAGT	GGCCGT				
TGCGACTGGG	ATCCC	AT	CCAA	AA	TAATGGAGC	ACT	GGCA	CC	AGTAGG	ATTG	G	TAGCGT	AC	GGG	ACCGT	GAGCA	GT	GGCCGT			
ATAGAACAA	CTG	AT	GGAGGT	AGCAT	GCTT	CGTT	GGT	AC	CC	GGCA	ACT	TCT	TAAG	TCAG	CTAC	CC	AGCGTT	G	GGCCGT		
TGCGACTGGT	ATCCC	AT	CCAA	AA	TAACGGAGC	ACT	GGCA	CC	AGTAGG	ATTG	G	TAC	GTG	AG	GGG	AT	TAC		GGT	AGCAAGT	GGCCGT

conservation

GT	843
..	519
GT	807
GT	825
GT	546
..	480
GT	816
..	420
TG	816
..	456
GT	819
..	441

non conserved
≥ 55% conserved
≥ 85% conserved