## **Supplementary Information**

## Molecular evolution and expression divergence of the *Populus euphratica Hsf* genes provide insight into the stress acclimation of desert poplar

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	$\beta 1$ $\beta 2$ $\alpha 2$ $\alpha 2$	3β3	β4	
PeuHsf-A1a	APPPFLRDFAYDLSEATFLSKYVHLASCG.HFISLKPLALTI	TASLPL <mark>GF</mark> RI	KVDPDRW <mark>EF</mark> ANEG	FLRGQKHLLRIISR
PeuHsf-A1b		MIEQ <mark>GF</mark> RI	VDPDRF <b>EF</b> ANEG	FLRGQKHLLRSIS
PeuHsf-A1c	SPPPFLSK.TYDMVDDPETDAVVSWSSTNNSFVVWNPPEFARDLLPKYFKHNNFSSFV	RQLNTYGFR	VDPDRW <mark>EF</mark> ANEG	FLRGQKHLLRTISR
PeuHsf-A1d	SEAIFLSKYAHLASCG.HFISLKPLALTI	TASLPL <mark>GF</mark> R	VDPDRW <mark>EF</mark> ANEG	FLRGQKHLLRIIS
PeuHsf-A2	GPPPFLTK.TYEMVEDPSTDTVVSWSGGRNSFIVWDSHKFSTTLLPKHFKHSNFSSFI	RQLNTY <mark>GF</mark> RI	VDPDRWEFANEG	FLGGQKHLLKTIK
PeuHsf-A3	PVPPFLSK.TYDLVDDRMLDPIISWGSIGESFVVWDPEEFARLVLPRNFKHNNFSSFV	RQLNTY <mark>GF</mark> RI	KIDTDRWEFANES	FRRGEKHLLKNIH <mark>R</mark>
PeuHsf-A4a	SLPPFLAK.AYEMVDDPSTDSIVSWSQNNKSFVVWNPPEFARDLLPRFFKHNNFSSFI	rqlnty <mark>gf</mark> ri	KIDPEQW <mark>EF</mark> ANED	FIRGQPHLMKNIH
PeuHsf-A4b	APPPFLTK.TYDMVDDPLTNSVVSWSHSGCSFVVWNPPEFAQDLLPKYFKHNNFSSFV	RQLNTY <mark>GF</mark> RI	KIDPDQW <mark>EF</mark> GNEE	FIRGQRHLLKNIH
PeuHsf-A4c	SLPPFLAK.TYEMVDDPSTDSIVSWSQSNKSFTVWDPPEFARDLLPRFFKHNNFSSFI	rqlnty <mark>gf</mark> ri	KIDPEQW <mark>EF</mark> ANED	FIRGQPFLMKNIH <mark>R</mark>
PeuHsf-A5a	GPAPFLIK.TYDMVDDSSTDEIVSWSSNKNSFVVWNPPEFARLLLPTFFKHNNFSSFI	RQLNTY <mark>GF</mark> RI	KIDPEKW <mark>EF</mark> ANED	FLKDQKHLLKNIH <mark>R</mark>
PeuHsf-A5b	GPAPFLVK.TYDMVDDSSTDEIVSWSSNKNSFVVWNPPEFARLLLPTFFKHNNFSSFI	RQLNTY <mark>GF</mark> RI	KIDPERW <mark>EF</mark> ANED	FVKDQKHLLKNIH <mark>R</mark>
PeuHsf-A5c	GPAPFLVK.TYDMVDDSSTDEIVSWSSNKNSFVVWNPPEFARLLLPTFFKHNNFSSFI	rqlnty <mark>gf</mark> ri	KIDPERW <mark>EF</mark> ANED	<b>P</b> VKDQKHLLKNIH <mark>R</mark>
PeuHsf-A6a	GPPPFLTK.TYDIIEDSSTNHIISWSRGNNSFVVWDPQAFSISLLPRYFKHNNFSSFV	RQLNTY <mark>GF</mark> RI	VDPDRW <mark>EF</mark> ANEG	FLRGQKHLLKTVR
PeuHsf-A6b	VPPPFLTK.TYDIVEDASTNHIVSWSRGNNSFIIWDPQAFSTSLLPRFFKHNNFSSFV	rqlnty <mark>gf</mark> ri	KVDPDRW <mark>EF</mark> ANEG	-LRGKKHLLKSIR <mark>r</mark>
PeuHsf-A7a	GPPPFLTK.TFDMVDDPTTNHIVSWNRGGSSFVAWDPHSLSTNLLPRYFKHNNFSSFV	RQLNTY <mark>GF</mark> RI	KIDPDRW <mark>EF</mark> ANEG	FLSGQKHLLRNIK
PeuHsf-A7b	GPPPFLTK.TFDMVDDPMTNHIVSWSRGGFSFVVWDPHSFSSNLLPRYFKHNNFSSFV	rqlnty <mark>gf</mark> ri	KIDPDRW <mark>EF</mark> ANEG	<b>F</b> LRGQKQLLRNIK <mark>R</mark>
PeuHsf-A7c	GPPPFLTK.TFDMVDDPMTNHIVSWSRGGFSFVVWDPHSFSSNLLPRYFKHNTFSSFV	rqlnty <mark>gf</mark> ri	KIDPDRW <mark>EF</mark> ANEG	<b>F</b> LRGQKQLLRNIK <mark>R</mark>
PeuHsf-A8	GVAPFLKK.CYEMVDDESTNSIISWSQTNDSFVIWDMTEFSVHLLPKYFKHSNSSSFV	rqlniy <mark>gf</mark> ri	KIDTDQW <mark>EF</mark> ANDG	FIRGQKHLLKNIC <mark>R</mark>
PeuHsf-A9	GPPPFLKK.TFEMVEDPETDETVSWGKNRDSFVVWDSHEFSKILLPKYFKHNNFSSFI	RQLNTY <mark>GF</mark> RI	KIDPDRW <mark>EF</mark> ANEG	<mark>B</mark> HGAKKHLLKTIK <mark>B</mark>
PeuHsf-B1	APAPFLTK.TYQLVDDPSTDDVISWNETGTTFVVWKTADFAKDLLPNYFKHNNFSSFV	RQLNTY <mark>GF</mark> RI	KIVPDKW <mark>EF</mark> ANEN	ERRGHKELLAEIR <mark>R</mark>
PeuHsf-B2a	IPTPFLTK.TYQIVDDHTIDDVVSWNEDGSSFIVWDPTVFARDLLPKYFKHNNFSSFV	RQLNTY <mark>GF</mark> RI	K <mark>vvpdrw<mark>ef</mark>snen</mark>	BRRGEKNLLANIQ <mark>B</mark>
PeuHsf-B2b	LPTPFLTK.TYQLVDDPSVDDLISWNDDGSTFIVWRPAEFARDLLPKYFKHNNFSSFV	RQLNTY <mark>GF</mark> RI	KVVPDRW <mark>EF</mark> ANDC	ERRGEKALLRDIQ <mark>r</mark>
PeuHsf-B2c	IPTPFLTK.TFKIVDDHTIDDVISWNEDGSSFIVWNPTLFSRDLLPKFFKHNNFSSFV	RQLNTY <mark>GF</mark> RI	KVVPDRW <mark>EF</mark> SNEC	FRKGEKNLLCEIQR
PeuHsf-B2d	IPTPFLTK.TYQIVDDHTIDDVVSWNEDGSSFIVWDPTVFARDLLPKYFKHNNFSSFV	RQLNTY <mark>GF</mark> RI	K <mark>VVPDRWEF</mark> SNEN	BRRGEKNLLANIQ <mark>B</mark>
PeuHsf-B3	TPPPFLLK.TYMLVEDPATDEVISWNDEGTGFVVWQPAEFARDLLPTLFKHSNFSSFF	RQLNTY <mark>GF</mark> RI	KVATSRW <b>EF</b> CNDM	FRKGERELLCQIR
PeuHsf-B4a	VPAPFLTK.TYQLVDDPATDHIVSWGEDDTTFVVWRPPEFARDLLPNYFKHNNFSSFV	RQLNTY <mark>GF</mark> RI	KIVPDRW <mark>EF</mark> ANEF	FKKGEKHLLCEIH
PeuHsf-B4b	VPAPFLTK.TYQLVDDPLTDHVVSWGDDETTFVVWRPPEFARELLPNYFKHNNFSSFV	RQLNTY <mark>GF</mark> KI	KVVTDRW <mark>EF</mark> ANEH	FRKGAKQLLSEIH <mark>r</mark>
PeuHsf-B4c	VPAPFLTK.TYQLVDDPATDHIVSWGEDDTTFVVWRPPEFARDLLPNYFKHNNFSSFV	RQLNTY <mark>GF</mark> RI	KIVPDRW <mark>EF</mark> ANEF	FKKGEKHLLCEIH <mark>R</mark>
PeuHsf-B4d	VPAPFLTK.TYQLVDDPLTDHIVSWGDDETSFVVWRPPEFSRDLLPNYFKHNNFSSFV	RQLNTY <mark>GF</mark> KI	KVVADRW <mark>EF</mark> ANEN	FRRGAKHLLSEIH <mark>r</mark>
PeuHsf-B5a	CPAPFLSK.TYDLIEEGRADGVVDHPHGKRIVSWNADGDGFIVWSPAEFSELTLPRYFKHNNFSSFI	RQLNTY <mark>GF</mark> KI	KTSSKQW <mark>ef</mark> khek	ELRGRRHMLVEIT <mark>R</mark>
PeuHsf-B5b	CPAPFLSK.TYDLLEEGGAHDSAPHGKRIASWNAEGNGFVVWSPAEFSELTLPRYFKHSNFSSFI	RQLNTY <mark>GF</mark> KI	KTSSKQW <b>ef</b> khem	<b>E</b> QKGRRHMLVEII <mark>R</mark>
PeuHsf-C1	IIAPFVLK.IYQMVSDPTTDSLISWGRANNSFIVIDPLDFSQRILPVYFKHNNFSSFV	RQLNTY <mark>GF</mark> RI	VDPDRW <mark>EF</mark> ANEW	FLRGQKQLLKNIV <mark>R</mark>

Fig. S1 Secondary structure of DBD region of *PeuHsf* family. Three  $\alpha$ - helices and four  $\beta$ - sheets were presented in the region.





Total of 32 *PeuHsfs* are mapped onto 31 scaffolds. Red letters indicate duplicated genes generated by whole genome duplication (WGD) events, blue letters indicate tandem duplicated genes. Green dash lines connect duplicated *PeuHsfs* which generated by WGD events.





Fig. S3 Sliding window plots of representative duplicated Hsf genes in A. thaliana.

Fig. S4



Fig. S4 Expression patterns of Arabidopsis Hsf genes across various tissues.



Fig. S5 Expression patterns of Arabidopsis Hsf genes across various abiotic stresses.

	Hsfs		P. euphratica	P. trichocarpa	A. thaliana
			(Peu) 32	(Pt) 31	(At) 21
Type A	A1	A1a	CCG006597.1	Potri.003G095000.1	At4g17750.1
		A1b	CCG033924.1	Potri.013G079800.1	At5g16820.1
		A1c	CCG014424.1	Potri.001G138900.1	At1g32330.1
		A1d	CCG024768.1	Potri.019G050400.1	At3g02990.1
	A2	A2	CCG009416.1	Potri.006G226800.1	At2g26150.1
	A3	A3	CCG023633.1	Potri.006G115700.1	At5g03720.1
	A4	A4a	CCG026694.1	Potri.011G071700.1	At4g18880.1
		A4b	CCG015090.1	Potri.014G141400.1	At5g45710.1
		A4c	CCG030319.1	Potri.004G062300.1	-
	A5	A5a	CCG001724.1	Potri.017G059600.1	At4g13980.1
		A5b	CCG019200.1	Potri.001G320900.1	
		A5c	CCG019201.1		
	A6	Аба	CCG007863.1	Potri.010G082000.1	At5g43840.1
		A6b	CCG000940.1	Potri.008G157600.1	At3g22830.1
	A7	A7a	CCG013195.1	Potri.005G214800.1	At3g51910.1
		A7b	CCG017804.1	Potri.002G048200.1	At3g63350.1
		A7c	CCG034159.1		-
	A8	A8a	CCG033049.1	Potri.008G136800.1	At1g67970.1
		A8b		Potri.010G104300.1	
	A9	A9	CCG013896.1	Potri.006G148200.1	At5g54070.1
Type B	B1	B1	CCG009216.1	Potri.007G043800.1	At4g36990.1
	B2	B2a	CCG001341.1	Potri.012G138900.1	At5g62020.1
		B2b	CCG024466.1	Potri.001G108100.1	At4g11660.1
		B2c	CCG005948.1	Potri.015G141100.1	-
		B2d	CCG007214.1		
	B3	B3a	CCG001458.1	Potri.006G049200.1	At2g41690.1
		B3b		Potri.016G056500.1	-
	B4	B4a	CCG027759.1	Potri.002G124800.1	At1g46264.1
		B4b	CCG020996.1	Potri.009G068000.1	-
		B4c	CCG010253.1	Potri.014G027100.1	
		B4d	CCG023235.1	Potri.001G273700.1	
	B5	B5a	CCG006244.1	Potri.004G042600.1	
		B5b	CCG032077.1	Potri.011G051600.1	
Type C	C1	C1	CCG004861.1	Potri.T137400.1	At3g24520.1

Table S1. Comparison of Hsf members in *P. euphratica*, *P. trichocarpa*, and *A. thaliana*.

Motif	Length	Best possible match
1	50	RYFKHNNFSSFVRQLNTYGFRKIDPDRWEFANECFRRGQKHLLCNIHRRK
2	41	FLTKTYDMVDDPSTDHIVSWNRDGNSFVVWDPPEFARDLLP
3	50	VLMMELVRLRQQQQSTDHQIQAMEQRLQWMECRQQQMMSFLAKAMQNPGF
4	29	TQQQAVGACVEVGRFGYEEEIERLKRDKN
5	41	ALIEENERLRKENCMLMSELTHMKKLCNDIIYFVQNYVKPR
6	32	VNDVFWEQFLTESPGYGDIEEVSSCYKANGYD
7	49	MKKELEEAMTKKRRVPIDQKRGREGGGEMNHGEGHANPIKAEPREYGCY
8	50	IMPHVSQMPEMVPENVADIPCEDYMEPETCNDGFIDPASLGINGTIPIDI
9	50	AYSKKRRLPQVDHPMPIAENSLVENHCSSRPESNVIHQDFPDKLRLELSP
10	46	KKRRLKQEDVPENEGSGSHDGQIVKYQPLMNEAAKAMLRQIMKMDA
11	21	GWWKAQHVDNLTEQMGHLTPD
12	29	TQELNDTGGSYQFKINPGVPKDIPTRTSG
13	50	SNEEVDGHISCQLNLSLASSPLQVNKNPYLTRIPQLGQEIGKSPESRFNE
14	15	PPQPMEGLHDTGPPP
15	21	MQACTDHATCGGGGGQAAPWP

 Table S2. Motif sequences identified by MEME tools in PeuHsfs.

Numbers in the first column indicate the motifs represented in the Fig. 2b.

	No.	Subfamily	Gene 1	Gene 2	Duplication	Ka	Ks	Ka/Ks
P. euphrarica	1	A1	PeuHsf-A1c	PeuHsf-A1d	W	0.173	0.343	0.503
	2	A1	PeuHsf-A1a	PeuHsf-A1d	W	0.004	0.009	0.389
	3	A4	PeuHsf-A4a	PeuHsf-A4c	W	0.069	0.253	0.274
	4	A5	PeuHsf-A5b	PeuHsf-A5c	Т	0.003	0.009	0.303
	5	A6	PeuHsf-A6a	PeuHsf-A6b	W	0.116	0.204	0.568
	6	A7	PeuHsf-A7a	PeuHsf-A7b	W	0.077	0.279	0.275
	7	B2	PeuHsf-B2c	PeuHsf-B2d	W	0.141	0.362	0.388
	8	B4	PeuHsf-B4a	PeuHsf-B4c	W	0.022	0.325	0.068
	9	B4	PeuHsf-B4b	PeuHsf-B4d	W	0.061	0.316	0.194
	10	B5	PeuHsf-B5a	PeuHsf-B5b	W	0.096	0.335	0.286
P. trichocarpa	1	A1	PtHsf-A1c	PtHsf-A1a	W	0.098	0.277	0.354
	2	A4	PtHsf-A4c	PtHsf-A4a	W	0.063	0.236	0.268
	3	A5	PtHsf-A5a	PtHsf-A5b	0	0.063	0.235	0.269
	4	A6	PtHsf-A6a	PtHsf-A6b	W	0.077	0.143	0.535
	5	A7	PtHsf-A7a	PtHsf-A7b	W	0.065	0.249	0.261
	6	A8	PtHsf-A8a	PtHsf-A8b	W	0.087	0.334	0.260
	7	B2	PtHsf-B2a	PtHsf-B2c	W	0.135	0.355	0.382
	8	В3	PtHsf-B3a	PtHsf-B3b	W	0.037	0.235	0.158
	9	B4	PtHsf-B4b	PtHsf-B4d	W	0.055	0.314	0.176
	10	B4	PtHsf-B4a	PtHsf-B4c	W	0.022	0.321	0.068
S. suchowensis	1	A4	SsuHsf-A4a	SsuHsf-A4c	W	0.088	0.309	0.284
	2	A6	SsuHsf-A6a	SsuHsf-A6b	W	0.118	0.296	0.400
	3	A7	SsuHsf-A7a	SsuHsf-A7b	W	0.119	0.348	0.343
	4	A8	SsuHsf-A8a	SsuHsf-A8b	W	0.100	0.320	0.312
	5	B4	SsuHsf-B4b	SsuHsf-B4d	W	0.117	0.379	0.308
A. thaliana	1	A1	AtHsf-A1a	AtHsf-A1c	W	0.414	1.269	0.326
	2	A1	AtHsf-A1d	AtHsf-A1b	W	0.209	0.779	0.268
	3	A4	AtHsf-A4a	AtHsf-A4b	W	0.173	0.817	0.212
	4	A6	AtHsf-A6a	AtHsf-A6b	W	0.423	2.011	0.210

 Table S3. Paralogous pairs in four species Hsf families.

## Table S4. List of primers used for qRT-PCR analysis.

PeuHsf-A1a/dCAGCTTCTCATTTTCCGGATATGGAAGCTGGATCTATGAATCCATCATPeuHsf-A1bGGTTCAGGAAGGTGATCCTGGTCTAACAAGTTCCTGCATGAGAACPeuHsf-A1cGCCGCCATTTCTGAGTAAGACTTAGCATTCCATGGGCAGGPeuHsf-A2CCATCAAACGGAAAGGACATCCTTTCTCTCTGGTGCCCGTAACCTAPeuHsf-A3GTTGAAGAACATTCATAGCGCGCTGCCTGAAGTCTCTGATTTACTPeuHsf-A4bACCACATTCGAGGGACATTGCATGGGAAGTCACCATTGGPeuHsf-A4cGCTGAAGCAAATGGAACGAAGCAGAGCTTGGGAAGTAACCGTCPeuHsf-A4cGCTGAAGCAAATGGAACATCCACAGCTGTGAAAGCAATGCACCTTCPeuHsf-A5aGCACTCGCTTAAGAACATCCACAGCTGTGGAAGTAACCGTCPeuHsf-A6aTAAGCCGAGACAAACGAAGCATCCTCTGCTGCACACATTCATCTTCTGPeuHsf-A6aTAAGCCGAGACAAACGAGCATTCCTCTTCAAGCTCTTCATCATGPeuHsf-A6aTAAGCCGAGACAAACGAGCATTCCTCTTCAAGCTTTCATCATGTPeuHsf-A7aCCTTTTTACAGCAGTAGTCAGCACCAGCTCTGAGACTTCAATTTCCAAGPeuHsf-A7aCCTTTTTTACAGCAGTAGTCAGCACCAGCCCACTCGAGCAGTCAPeuHsf-A7aCCTTTTTTATATGGGACAGAAACCACCACTTCGCCGPeuHsf-A8ACAGCTTGTTATATGGGACAGAAACCACCACTCTGCTGCGPeuHsf-B1GATCAACGACAGTGGATCAAATATCGCGGAGAAGTGCTTPeuHsf-B2CAGGAAACGACGATGATCAAATATCGCGGAGAAGGGCTTTPeuHsf-B2GGGAAACTCCAACACCACCGCAATAGGTGTGTGCTGCTGCAGACPeuHsf-B2CAGCAATAGCAACCAACCCACGCAATAGGTGGTGGATTCCAGPeuHsf-B3ATTGTGGTGTGGCAACCGGAATAGGTTGTGGAGACACACAPeuHsf-B4CTAATGGTGTGGCAACCAACCTACCCACGGTTAGGAGTGGATTCAAGACACAPeuHsf-B44TTCAAGCACAATAGCCAAGAACCCAGCAGATAGGTTGTGGAG		Forward primer	Reverse primer
PeuHsf-A1bGGTTTCAGGAAGGTTGATCCTGGTCTAACAAGTTCCTGCATGAGAACPeuHsf-A1cGCCGCCATTTCTGAGTAAGACTTAGCATGTCCATGGGCAGGPeuHsf-A2CCATCAAACGGAAAGCATCTCTTTCTCTCTGTGCTCCGTAACCTAPeuHsf-A3GTTGAAGAACATTCATAGGCGCGCTGCCTGAAGTCACCATTTGGPeuHsf-A4AGTTACAGCAAACGGAATGCATCATGGGAAGTAACCACATTGGPeuHsf-A4bACCACATTCGAGGGACATTGCATGGGAAGGAAGAACGGTCPeuHsf-A4cGCTGAAGCAAACGAGAACGAAGCAGAGCTTGGGAAGTAACCGTCPeuHsf-A5aGCATCTGCTTAAGAACATCCACAGCTGTGAAAGCCTAAGAATCTTCTGPeuHsf-A5aGCATCTGCTAAGTACACCACAGGTCCTCTGCTGCAAAGTACTTCATGTPeuHsf-A6aTAAGCCGAGCAAACGAGCATTCCTCTTCAAGCACTCTATCTTCTGPeuHsf-A6bACCACATGTGATGAACATCAGAGAACACTCAACACATCTCATCATGPeuHsf-A7aCCTTTTTACAGCAGTTAGTCAGCACCAGCTCTGAGACTTCCATCTTPeuHsf-A7b/cGCAAAGGCTACAATGGACAGAAACCACCACTTCGACGAGGTGCTPeuHsf-A7bCAGCAGAGCGGAGCAGTTACTGCAATGGTTGTCTGCTGPeuHsf-A8ACAGCTTTGTTATATGGGACATGACGCTCAATGGAGTGTCTTGCTGPeuHsf-A9CAGCAGAGCGGAGCAGTTACTGCAATTGTTGCACCTGCAGPeuHsf-B1GATCCAAGCACGATGATGTGGATTTCCTCCTTGTATATTGGCTPeuHsf-B2cGGGAAACCCAAGCATGGATCAAATTTCGCGGAAGAGCTTTPeuHsf-B3ATTGTGGTGGCAACCGGAATAGGTTGTGTGCTGCAGACPeuHsf-B4aCTAATGGTTCTAGTAACACAGAGCCCAATCTTTTGTTGTTGTAACCAGPeuHsf-B4bTGCCAGCACCAACACCTACCGCAGTAAGGATATGATCAACACAPeuHsf-B4bTGCAAGCACACACACACACCACCGCAGTAAGGATAGTGCGACTTGGAACACACAPeuHsf-B4bTGCAAGCAGAGCTCACACACACCAC <td< th=""><th>PeuHsf-A1a/d</th><th>CAGCTTCTCATTTTCCGGATATG</th><th>GAAGCTGGATCTATGAATCCATCAT</th></td<>	PeuHsf-A1a/d	CAGCTTCTCATTTTCCGGATATG	GAAGCTGGATCTATGAATCCATCAT
PeuHsf-A1cGCCGCCATTTCTGAGTAAGACTTAGCATGTCCATGGGCAGGPeuHsf-A2CCATCAAACGGAAAGACATCTCTTTCTCTCTGTGCTCCGTAACCTAPeuHsf-A3GTTGAAGAACATTCATAGGCGCGCTGCCTGAAGTCTCGATTTACTPeuHsf-A4aAGTTACAGCAAACGGAATGCATCATGGGAAGTCACCATTTGGPeuHsf-A4bACCACATTCGAGGGACATTGCATGGCAAGCCACCACACPeuHsf-A4cGCTGAAGCAAATGGAACGAAGCAGAGCTTGGGAAGTAACCGTCPeuHsf-A5aGCATCTGCTTAAGAACATCCACAGCTGTGAAAGCCTAGAATACTTCPeuHsf-A5b/cCCACAGTCATAGTCAACCTCAAGGTCCTCTGCTGCATAGTACTATCTTCTGGPeuHsf-A6aTAAGCCGAGACAAACGAGCATTCCTCTTCAAGCACTTCAACATGPeuHsf-A6aTAAGCCGAGGACAAACGAGCATTCCTCTTCAAGCACTTCAACATGPeuHsf-A6aCACAACTGATCAACTGGTGGAGAACACTCAACACATCTTCATCTTPeuHsf-A6aACCAACTGATCAACTGGTGGGGAAACACTCAACACATCTCCACATTPeuHsf-A7aCCTTTTTACAGCAGTTAGTCAGCACCAGCACGCCAGGTCTPeuHsf-A8ACAGCTTTGTATATGGACAGAAACCACCACTTGGCAGGGTGPeuHsf-A9CAGCAGAGCGAACGATGATGCACACACTGGCGAGGACTPeuHsf-A9CAGCAGACGAGGACGATGGATGGAGCTTTGGTGCTGCCGPeuHsf-B1GATCCAAGCACTGATGGATGGATGGAGCTTTGGTATTGGCTPeuHsf-B2bCATGGAACGACGATGGATCAAATATCGCGGAGAGGGCTTPeuHsf-B2bCATGGAACCCAACACGAGCATGGTGGATGGATTGAACAACAPeuHsf-B4bTGCAAGGCAGCACCAACCTCCGCAATAGGTTGTGGTAGCACACAPeuHsf-B4bTGTCAGGCACCTACACCACGCAATAGGTGGTGGATTGAACAACAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTCGCGGAAGTAGTGTGGAPeuHsf-B4bGCACCATATGGTACGACAGACTACGCTAGGGAGAGTATTAAACGAT <th>PeuHsf-A1b</th> <th>GGTTTCAGGAAGGTTGATCCTG</th> <th>GTCTAACAAGTTCCTGCATGAGAAC</th>	PeuHsf-A1b	GGTTTCAGGAAGGTTGATCCTG	GTCTAACAAGTTCCTGCATGAGAAC
PeuHsf-A2CCATCAAACGGAAAGACATCTCTTTCTCTCTGTGCTCCGTAACCTAPeuHsf-A3GTTGAAGACATTCATAGGCGCGCTGCCTGAAGTCTCTGATTTACTPeuHsf-A4aAGTTACAGCAAACGGAATGCATCATGGGAAGTCACCATTGGPeuHsf-A4bACCACATTCGAGGGACATTGCATTGCTCCGTTCACCACAPeuHsf-A4cGCTGAAGCAAATGGAACGAAGCAGAGCTTGGGAAGTAACCGTCPeuHsf-A5aGCATCTGCTTAAGAACATCCACAGCTGTGAAAGCCTTGCATAGTACTTCTGGPeuHsf-A5aCCACAGTCATAGTCAACCTCAAGGTCCTCTGCTGCATAGTATCTATCTTCTGPeuHsf-A6aTAAGCCGAGACAAACGAGCATTCCTCTTCAAGCTCTTCCATCATGPeuHsf-A7aCCTTTTTACAGCAGTTAGTCAGCACCAGCTCGAGACTTCAATTCAAGGPeuHsf-A7aCCTTTTTACAGCAGTTAGTCAGCACCAGCCCAGGCCAGGCCAGTAGTPeuHsf-A7aCCTTTTTACAGCAGTTAGTCAGCACCAGCCCAGGCCAGGCCPeuHsf-A7aCCTTTTTACAGCAGTTAGTCAGCAGCCCAAGGAGTGCTCTGCTGPeuHsf-A8ACAGCTTGTATATGGGACAGAAACCACCACTCATCGAGGCTPeuHsf-A9CAGCAGAGGGAGCAGTACTGCAATTGTTGCTCTGCAGGPeuHsf-A9CAGCAGAGGAGGAGTTACTGGAGCTCTTGTGTCTCGCPeuHsf-B1GATCCAAGCACGATGAGATGAGGATTTTCCTCCTTGTATATGGCTPeuHsf-B2bCATGGAACGACGATGAGATCAAATATCGCGGAGAGATCCAGPeuHsf-B2cGGGAAACTCCAACAGCACGGCAATAGGTTGTGCTGCTAGACPeuHsf-B4dTTCAGCGCAGCTCAACACCTACCGCAGTTAGAACAACAAPeuHsf-B4dTTCAAGCATGAGACGACGAAGGCCCAATTGTTGTTGTTGTTGTAGGAPeuHsf-B4dTTCAAGCACATAGCAAGTACTGAGCTTAGGTAGCACAACACAPeuHsf-B4dTTCAACCCAAGAGACAAGTCTGAGAGGATCTAGGCTAGGTGCGCATTATAAAGCCPeuHsf-B5bATTGCAGCAGCACAAGAGTCTGAGAGGACTGCA <th>PeuHsf-A1c</th> <th>GCCGCCATTTCTGAGTAAGACT</th> <th>TAGCATGTCCATGGGCAGG</th>	PeuHsf-A1c	GCCGCCATTTCTGAGTAAGACT	TAGCATGTCCATGGGCAGG
PeuHsf-A3GTTGAAGAACATTCATAGGCGCGCTGCCTGAAGTCTCTGATTTACTPeuHsf-A4aAGTTACAGCAAACGGAATGCATCATGGGAAGTCACCATTGGPeuHsf-A4bACCACATTCGAGGGACATTGCATTGCTCCGTTCACCACAPeuHsf-A4cGCTGAAGCAAATGGAACGAAGCAGAGCTTGGGAAGTAACCGTCPeuHsf-A5aGCATCTGCTTAAGAACATCCACAGCTGTGAAAGCCTAGAATACTTCPeuHsf-A6aTAAGCCGAGCACAACGAGCATTCCTCTTCAAGCTCTTTCATCATGPeuHsf-A6bACCAACTGATCAACTGGTGGAGAACACTCAACCATCTTCCTCATCATGPeuHsf-A7aCCTTTTTACAGCAGTTAGTCAGCACCAGCTCTGAGACTTCAATTCAAGPeuHsf-A7aCCTTTTTACAGCAGTTAGTCAGCACCAGCACTTGGAGACTTCAATTCAAGPeuHsf-A8ACACTTGTTATATGGGACATGACGCCAATGGACTGCTGGCAGGAPeuHsf-A9CAGCAGAGCGAGCAGTTACTGCAATTGTTTGCACTCTGCAGPeuHsf-A9CAGCAGAGCGAGCAGTTACTGCAATTGTTTGCCTCGCPeuHsf-B1GATCCAAGCACTGATGATGTGGAGAGCTCTTTGTGTCCTCGCPeuHsf-B2bCATGGAACGACGATGGATGCGGATTTTCCTCCTTTGTATATTGGCTPeuHsf-B2cGGGAAACTCCAACATCCTCACTAGGAGAAAGGGTTGGATTCCAGPeuHsf-B4aCTAATGGTTCTCTAGTACAGAAGCCCCAATCTTTTGTTGTAATGGCPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCTGCATTATAAGCCPeuHsf-B5aTTCAAGCATGAGAAGTCTTGAGAGTCTCCTCCCATGAGAACATTPeuHsf-B5bCATGATAGCGCTCCTCATGGCCTCCTCCCTTTCTGAAACATTPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCCTTCTGAAACATTPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCCTTCTGAAACATTPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTC	PeuHsf-A2	CCATCAAACGGAAAAGACATCTC	TTTCTCTCTGTGCTCCGTAACCTA
PeuHsf-A4aAGTTACAGCAAACGGAATGCATCATGGGAAGTCACCATTTGGPeuHsf-A4bACCACATTCGAGGGACATTGCATTTGCTCCGTTCACCACAPeuHsf-A4cGCTGAAGCAAATGGAACGAAGCAGAGCTTGGAAGTAACCGTCPeuHsf-A5aGCATCTGCTTAAGAACATCCACAGCTGTGAAAGCCCTAGAATACTTCPeuHsf-A5b/cCCACAGTCATAGTCAACCTCAAGGTCCTCTGCTGCATAGTACTATCTTCTGGPeuHsf-A6aTAAGCCGAGACAAACGAGCATTCCTCTTCAAGCTCTTCCATCATGPeuHsf-A7aCCTTTTTACAGCAGTTAGTCAGCACCAGCTCTGAGACTTCAATTCCAAGPeuHsf-A7aCCTTTTTACAGCAGTTAGTCAGCACCAGCTCTGAGACTTCAATTCCAAGPeuHsf-A7b/cGCAAAGGCTACAATGGACAGAAACCACCACTTCGACCAGGTCTPeuHsf-A9CAGCAGAGCGGAGCAGTACTGCAATTGTTGCACTCTGCAGPeuHsf-A9CAGCAGAGCGGAGCAGTACTGCAATTGTTGCACTCTGCAGPeuHsf-B1GATCCAAGCACTGATGATGTGATGGAGCTCTTTGTGTCTCGCPeuHsf-B2CATGGAACGACGATGGATCAAATATCGCGGAGAAGTGCTTPeuHsf-B2GGAAACTCCAACACTCTCACTAGGAGAAAGGGTTGGATTCCAGPeuHsf-B3ATTGTGGTGTGGCAACCGCAATTGTTGTTGTTGCTAGACPeuHsf-B44CTAATGGTTCTCTAGTACGAAGAGCCCAATCTTTTCTTTGTTATAGGCPeuHsf-B44TTCAATGCTACACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B44TTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGTGCTACTACAACACAPeuHsf-B55TTCAAGCATGAGAAGTTCTTGAGATCTCCTCCCATGAGTATTAAAGCCPeuHsf-B56TTCAAGCATGAGAAGTTCTTGAGAGTCTCCTCCCATGAGTATCAAACGATPeuHsf-B56CATGATAGCGCTCTCATGGTCCTCCTCCCTTTCTGAAACATTPeuHsf-B56CATGATAGCGTCCTCATGGTTCTCTCCCATGAGACATATATCTCPeuHsf-B50CATGATAGCGTCCTCATGGT <th>PeuHsf-A3</th> <th>GTTGAAGAACATTCATAGGCGC</th> <th>GCTGCCTGAAGTCTCTGATTTACT</th>	PeuHsf-A3	GTTGAAGAACATTCATAGGCGC	GCTGCCTGAAGTCTCTGATTTACT
PeuHsf-A4bACCACATTCGAGGGACATTTGCATTTGCTCCGTTCACCACAPeuHsf-A4cGCTGAAGCAAATGGAACGAAGCAGAGCTTGGGAAGTAACCGTCPeuHsf-A5aGCATCTGCTTAAGAACATCCACAGCTGTGAAAGCCCTAGAATACTTCPeuHsf-A5b/cCCACAGTCATAGTCAACCTCAAGGTCCTCTGCTGCATAGTATCTATCTTCTGPeuHsf-A6aTAAGCCGAGACAAACGAGCATTCCTCTTCAAGCTCTTTCATCATGPeuHsf-A7aCCTTTTTACAGCAGTTGGTGGAGAACACTCAACACATCTCCTCATCTTPeuHsf-A7aCCTTTTTACAGCAGTTAGTCAGCACCAGCTCGAGACTTCAATTCCAAGPeuHsf-A7b/cGCAAAGGCTTGTACAATGGACAGAAACCACCACTTCGACCAGGTCTPeuHsf-A7bGCACAGGCGGAGCAGTACATGCAATGGTTGTCTGCTGPeuHsf-A8ACAGCTTTGTTATATGGGACATGACGCAATTGTTTGCACTCGCAGGPeuHsf-B1GATCCAAGCACTGATGATGTGGCACTTTGTTGCTCTGCAGPeuHsf-B2a/dCGATCATACGATAGACGATGTCGGATTTCCTCCTTGTTGTTGCTTGCTAGACPeuHsf-B2aCATGGAACGACGATGGATCAAATATCGCGGAGAAGTGCTTTPeuHsf-B3ATTTGTGGTGTGGCAACCGGCAATAGGTTGGTGCTAGACPeuHsf-B44CTAATGGTTCTCTAGTACAGAAGCCCCAATCTTTTCTTTGTTAGTAATGGCPeuHsf-B4bTGCAGGCAGCTCAACACCTACGCCAGTTAGGATATGATCAACACAPeuHsf-B4cAGCACCATATGCTACTGCTAATCCGCTTGCGAAGTAGTGTGTGGAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCGCATTATAAGCCPeuHsf-B5aTTCAAGCATGAGAAGTCTTGAGAGTCTCCTCCATGAGTATCAAACGATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCTTCTGAAACATTPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCCTTCTGAAACATTPeuHsf-C1TCTCTCAGAGGAGTTTTGCCTGTGTATGCTTCCCGCAACTATATCTCTC	PeuHsf-A4a	AGTTACAGCAAACGGAATGCAT	CATGGGAAGTCACCATTTGG
PeuHsf-A4cGCTGAAGCAAATGGAACGAAGCAGAGCTTGGGAAGTAACCGTCPeuHsf-A5aGCATCTGCTTAAGAACATCCACAGCTGTGAAAGCCCTAGAATACTTCPeuHsf-A5b/cCCACAGTCATAGTCAACCTCAAGGTCCTCTGCTGCATAGTATCTATCTTCTGPeuHsf-A6aTAAGCCGAGACAAACGAGCATTCCTCTTCAAGCTCTTTCATCATGPeuHsf-A6bACCAACTGATCAACTTGGTGGAGAACACTCAACACATCTCCTCATCTTPeuHsf-A7aCCTTTTTACAGCAGTTAGTCAGCACCAGCTCGAGACTTCAATTCCAAGPeuHsf-A7b/cGCAAAGGCTACAATGGACAGAAACCACCACTTCGACCAGGTCTPeuHsf-A8ACAGCTTTGTTATATGGACATGACGCTAATGGATGTGCTGCAGPeuHsf-A9CAGCAGAGCGGAGCAGTTACTGCAATTGTTTGCACTGCAGPeuHsf-B1GATCCAAGCACTGATGATGGATGGAGCTCTTTGTGTCCTCGCPeuHsf-B2CGATCATACGATAGACGATGGATGAGCAGAAGGGTTGGATTGGCAGCPeuHsf-B2CATGGAACGACGATGGATCAAATATCGCGGAGAAGTGCTTPeuHsf-B3ATTGTGGTGTGGCAACCGGCAATAGGTTGGTGGCAACCAPeuHsf-B44CTAATGGTCTCTAGATACAGAAGCCCCAATCTTTTCTTTGTTATAGGCPeuHsf-B45AGCACCATATGCTACACACCTACGCGAGTAGATATGATCAACACAPeuHsf-B44TTCAACGCACATAGCTACTGCAGCTTAGGTGGCAACCACACACPeuHsf-B44TTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGTGCTGCATTATAAGCCPeuHsf-B5aTTCAAGCATGAGAAGTCTTGAGAGTCTCCTCCATGAGTATCAAACGATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCATGAGTATCAAACGATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCTTCTGAAACATTPeuHsf-C1TCTCTCAGAGGATTTTGCCTGTATGCTTCCCGGAACTATATTCTTC	PeuHsf-A4b	ACCACATTCGAGGGACATTTG	CATTTGCTCCGTTCACCACA
PeuHsf-A5aGCATCTGCTTAAGAACATCCACAGCTGTGAAAGCCCTAGAATACTTCPeuHsf-A5b/cCCACAGTCATAGTCAACCTCAAGGTCCTCTGCTGCATAGTATCTATCTTCTGPeuHsf-A6aTAAGCCGAGACAAACGAGCATTCCTCTTCAAGGTCTTTCATCATGPeuHsf-A6bACCAACTGATCAACTTGGTGGAGAACACTCAACACATCTTCCATCATPeuHsf-A7aCCTTTTTACAGCAGTTAGTCAGCACCAGCACCACTTCGAGACTTCAATTCAAGPeuHsf-A7b/cGCAAAGGCTACAATGGACAGAAACCACCACTTCGACCAGGTCTPeuHsf-A8ACAGCTTTGTTATATGGGACATGACGCTCAATGGAGTTGTCTTGCTGPeuHsf-B1GATCCAAGCACTGATGATGTGATGGAGCTCTTTGTGTCTCCGCPeuHsf-B2a/dCGATCATACGATAGACGATGTCGGATTTTCCTCCTTTGTATATGGCTPeuHsf-B2bCATGGAACGACGATGACAAATATCGCGGAGAAGTGCTTTPeuHsf-B3ATTTGTGGTGTGGCAACCGGCAATAGGTTGTTGCTTGCTAGACPeuHsf-B4aCTAATGGTTCTCTAGTACAGAAGCCCCAATCTTTTCTTTGTTATAGGCPeuHsf-B4bTGTCAGGCAGCTGAACACCTACGCCAGTTAGGATATGATCAACACAPeuHsf-B4cAGCACCATATGCTACAACACTACGCTCTGCGAAGTAGTGTGGGAACACAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCTGCATTATAAGCCPeuHsf-B5aTTCAAGCATGAGAAGTCTTGGAGATCCTCCTCCATGAGATATCAAACGATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCATGAGATATCAAACGATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCTTGGAACACATPeuHsf-C1TCTCTCAAGAGATTTGCCTGTATGCTTCCTGCAAACATT	PeuHsf-A4c	GCTGAAGCAAATGGAACGAAG	CAGAGCTTGGGAAGTAACCGTC
PeuHsf-A5b/cCCACAGTCATAGTCAACCTCAAGGTCCTCTGCTGCATAGTATCTATCTTCTGPeuHsf-A6aTAAGCCGAGACAAACGAGCATTCCTCTTCAAGCTCTTTCATCATGPeuHsf-A7bACCAACTGATCAACTTGGTGGAGAACACTCAACACACTTCCTCATCTTPeuHsf-A7aCCTTTTTACAGCAGTTAGTTCAGCACCAGCTCTGAGACTTCAATTTCAAGPeuHsf-A7b/cGCAAAGGCTACAATGGACAGAAACCACCACTTCGACCAGGTCTPeuHsf-A8ACAGCTTTGTTATATGGGACATGACGCTCAATGGAGTTGTCTGCTGPeuHsf-A9CAGCAGACGGAGCAGTTACTGCAATTGTTTGCACTCTGCAGPeuHsf-B1GATCCAAGCACTGATGATGTGATGGAGCTCTTTGTGTCCTCGCPeuHsf-B2a/dCGATCATACGATAGACGATGTCGGATTTTCCTCCTTTGTATATTGGCTPeuHsf-B2bCATGGAACGACGATGGATCAAATATCGCGGGAGAAGTGCTTTPeuHsf-B2bGGAAACTCCAACACTCCACATAGGAGAAAGGGTTGGATTCCAGPeuHsf-B4aCTAATGGTTCTCTAGTACAGAAGCCCCAATCTTTTCTTGTTTGTAATGGCPeuHsf-B4bTGTCAGGCAGCTCAACACCTACGCCAGTTAGGATAGTAGTAGAACAAPeuHsf-B4cAGCACCATATGCTACTGCTAATCGGCTTAGGTGTGCAACACAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGTGCTGCATATAAAGCCPeuHsf-B5aTTCAAGCATGAGAAGTCTTGGAAGGCTTAGGTGTGCTACTAAACCAAPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCATGAGATATAAACCAAPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCTTTCTGAAACAATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCCTTTCTGAAACATTPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCCTTTCTGAAACATTPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCCTTTCTGAAACATTPeuHsf-C1TCTCTCAGAGAGATTTTGCCTGTATGCTTCCTGCGAACAATTCTTCTC	PeuHsf-A5a	GCATCTGCTTAAGAACATCCACA	GCTGTGAAAGCCCTAGAATACTTC
PeuHsf-A6aTAAGCCGAGACAAACGAGCATTCCTCTTCAAGCTCTTTCATCATGPeuHsf-A6bACCAACTGATCAACTTGGTGGAGAACACTCAACACATCTTCCTCATCTTPeuHsf-A7aCCTTTTTACAGCAGTTAGTTCAGCACCAGCTCTGAGACTTCAATTTCAAGPeuHsf-A7aCCTTTTTACAGCAGTTAGTTCAGCAACCACCACTTCGACCAGGTCTPeuHsf-A7b/cGCAAAGGCTACAATGGACAGAAACCACCACTTCGACCAGGTCTPeuHsf-A8ACAGCTTTGTTATATGGACATGACGCTCAATGGAGTTGTCTTGCTGPeuHsf-A9CAGCAGAGCGGAGCAGTTACTGCAATTGTTTGCACTCTGCAGPeuHsf-B1GATCCAAGCACTGATGATGTGATGGAGCTCTTTGTGTCCTCGCPeuHsf-B2bCATGGAACGACGATGGATCAAATATCGCGGAGAAGTGCTTTPeuHsf-B2bCATGGAACGACGATGGATCAAATATCGCGGAGAAGTGCTTTPeuHsf-B3ATTTGTGGTGTGGCAACCGGCAATAGGTTGTGCTTGCTAGACPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGATAGATCAACACAPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCGCACTTATAAGCCPeuHsf-B5bTTCAAGCATGAGAAGTTCTTGAGAGTCTCCTCCATGAGAAACGATPeuHsf-B5bCATGATAGCGCTCCTCATGGTAGCTTAGGTGCGCAACACTTPeuHsf-C1TCTCTCAGAGGATTTTGCCTGTATGCTTCCTGCGAACTATATATTCTTC	PeuHsf-A5b/c	CCACAGTCATAGTCAACCTCAAGGT	CCTCTGCTGCATAGTATCTATCTTCTG
PeuHsf-A6bACCAACTGATCAACTTGGTGGAGAACACTCAACACATCTTCCTCATCTTPeuHsf-A7aCCTTTTTACAGCAGTTAGTTCAGCACCAGCTCTGAGACTTCAATTTCAAGPeuHsf-A7b/cGCAAAGGCTACAATGGACAGAAACCACCACTTCGACCAGGTCTPeuHsf-A8ACAGCTTTGTTATATGGGACATGACGCTCAATGGAGTTGTCTTGCTGPeuHsf-A9CAGCAGAGCGGAGCAGTTACTGCAATTGTTTGCACTCTGCAGPeuHsf-B1GATCCAAGCACTGATGATGTGATGGAGCTCTTTGTGTCCTCGCPeuHsf-B2bCATGGAACGACGATGACGATGTCGGATTTTCCTCCTTTGTATATTGGCTPeuHsf-B2bCATGGAACGACGATGGATCAAATATCGCGGAGAAGTGCTTTPeuHsf-B2bGGGAACTCCAACATCCTCACTAGGAGAAAAGGGTTGGATTCCAGPeuHsf-B3ATTGTGGTGTGGCAACCGCAATCTTTCTTGTTGTAATGGCPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCTGCATTATAAGCCPeuHsf-B5bTTCAAGCATGAGAAGTTCTTGAGAGTCTCCTCCCTTTCTGAAACACATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCCTTTCTGAAACATTPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCCTTTCTGAAACATT	PeuHsf-A6a	TAAGCCGAGACAAACGAGCAT	TCCTCTTCAAGCTCTTTCATCATG
PeuHsf-A7aCCTTTTTACAGCAGTTAGTTCAGCACCAGCTCTGAGACTTCAATTTCAAGPeuHsf-A7b/cGCAAAGGCTACAATGGACAGAAACCACCACTTCGACCAGGTCTPeuHsf-A8ACAGCTTTGTTATATGGGACATGACGCTCAATGGAGTTGTCTTGCTGPeuHsf-A9CAGCAGAGCGGAGCAGTTACTGGAGCTCTTTGTGCCCCGCPeuHsf-B1GATCCAAGCACTGATGATGTGATGGAGCTCTTTGTGTCTCGCPeuHsf-B2a/dCGATCATACGATGACGATGTCGGATTTTCCTCCTTTGTATATTGGCTPeuHsf-B2bCATGGAACGACGATGGATCAAATATCGCGGAGAAGTGCTTTPeuHsf-B2cGGGAAACTCCAACATCCTCACTAGGAGAAAAGGGTTGGATTCCAGPeuHsf-B3ATTTGTGGTGTGGCAACCGCAATCTTTTTTTTTTTTTGTAATGGCPeuHsf-B4aCTAATGGTTCTCAGTACAGAAGCCCCAATCTTTTCTTTGTTAGAACACAPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B4cAGCACCATATGCTACTGCTAATCCGCTCTGCGAAGTAGTTGTTGGAPeuHsf-B4cTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCTGCATTATAAGCCPeuHsf-B5bTTCAAGCATGAGAAGTTCTTGAGAGTCTCCTCCCATGAGAACAATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCTTTCTGAAACAATPeuHsf-C1TCTCTCCAGAGGATTTTGCCTGTTATGCTTCCTGCGAACTATATTCTTC	PeuHsf-A6b	ACCAACTGATCAACTTGGTGGAG	AACACTCAACACATCTTCCTCATCTT
PeuHsf-A7b/cGCAAAGGCTACAATGGACAGAAACCACCACTTCGACCAGGTCTPeuHsf-A8ACAGCTTTGTTATATGGGACATGACGCTCAATGGAGTTGTCTTGCTGPeuHsf-A9CAGCAGAGCGGAGCAGTTACTGCAATTGTTTGCACTCTGCAGPeuHsf-B1GATCCAAGCACTGATGATGTGATGGAGCTCTTTGTGTCCTCGCPeuHsf-B2a/dCGATCATACGATAGACGATGTCGGATTTTCCTCCTTTGTATATTGGCTPeuHsf-B2bCATGGAACGACGATGGATCAAATATCGCGGAGAAGTGCTTTPeuHsf-B2cGGGAAACTCCAACATCCTCACTAGGAGAAAAGGGTTGGATTCCAGPeuHsf-B3ATTTGTGGTGTGGCAACCGGCAATAGGTTGTTGCTTGCTAGACPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B4cAGCACCATATGCTACTGCTAATCCGCTCTGCGAAGTAGTTGTTGGAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCTGCATTATAAGCCPeuHsf-B5aTTCAAGCATGAGAAGTCTTGAGAGTCTCCTCCAGAGGTATCAAACGATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCTTTCTAGAACATTPeuHsf-B5bCATGATAGCGTCCTCATGGTTCTCCTCCATGAGAACATTPeuHsf-C1TCTCTCAGAGGATTTTGCCTGTATGCTTCCTGCGAACTATATTCTTC	PeuHsf-A7a	CCTTTTTACAGCAGTTAGTTCAGCA	CCAGCTCTGAGACTTCAATTTCAAG
PeuHsf-A8ACAGCTTTGTTATATGGGACATGACGCTCAATGGAGTTGTCTTGCTGPeuHsf-A9CAGCAGAGCGGAGCAGTTACTGCAATTGTTTGCACTCTGCAGPeuHsf-B1GATCCAAGCACTGATGATGTGATGGAGCTCTTTGTGTCCTCGCPeuHsf-B2a/dCGATCATACGATAGACGATGTCGGATTTTCCTCCTTTGTATATTGGCTPeuHsf-B2bCATGGAACGACGATGGATCAAATATCGCGGAGAAGTGCTTTPeuHsf-B2cGGGAAACTCCAACATCCTCACTAGGAGAAAAGGGTTGGATTCCAGPeuHsf-B3ATTTGTGGTGTGGCAACCGGCAATAGGTTGTTGCTAGAACAGAPeuHsf-B4aCTAATGGTTCTCTAGTACAGAAGCCCCAATCTTTTCTTTGTTATATGGCPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B4cAGCACCATATGCTACTGCTAATCCGCTCTGCGAAGTAGTTGTTGGAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCTGCATTATAAGCCPeuHsf-B5aTTCAAGCATGAGAAGTTCTTGAGAGTCTCCTCCATGAGTATCAAACGATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCTTTCTGAAACATTPeuHsf-C1TCTCTCAGAGGATTTTGCCTGTATGCTTCCTGCGAACTATATTCTTC	PeuHsf-A7b/c	GCAAAGGCTACAATGGACAGAA	ACCACCACTTCGACCAGGTCT
PeuHsf-A9CAGCAGAGCGGAGCAGTTACTGCAATTGTTTGCACTCTGCAGPeuHsf-B1GATCCAAGCACTGATGATGTGATGGAGCTCTTTGTGTCTCGCPeuHsf-B2a/dCGATCATACGATAGACGATGTCGGATTTTCCTCCTTTGTATATTGGCTPeuHsf-B2bCATGGAACGACGATGGATCAAATATCGCGGAGAAGTGCTTTPeuHsf-B2cGGGAAACTCCAACATCCTCACTAGGAGAAAAGGGTTGGATTCCAGPeuHsf-B3ATTTGTGGTGTGGCAACCGGCAATAGGTTGTTGCTTGCTAGAACPeuHsf-B4aCTAATGGTTCTCTAGTACAGAAGCCCCAATCTTTTCTTTGTTATATGGCPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B4cAGCACCATATGCTACTGCTAATCCGCTCTGCGAAGTAGTTGTTGGAPeuHsf-B4cTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCTGCATTATAAGCCPeuHsf-B4cTTCAAGCATGAGAAGTTCTTGAGAGTCTCCTCCATGAGTATCAAAACGATPeuHsf-B5aTTCAAGCATGAGAAGTTCTTGAGAGTCTCCTCCATGAGTATCAAACGATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCTTTCTGAAACATTPeuHsf-C1TCTCTCAGAGGATTTTGCCTGTATGCTTCCTGCGAACTATATTCTTC	PeuHsf-A8	ACAGCTTTGTTATATGGGACATGAC	GCTCAATGGAGTTGTCTTGCTG
PeuHsf-B1GATCCAAGCACTGATGATGTGATGGAGCTCTTTGTGTCCTCGCPeuHsf-B2a/dCGATCATACGATGGACGATGTCGGATTTTCCTCTTTGTATATTGGCTPeuHsf-B2bCATGGAACGACGATGGATCAAATATCGCGGAGAAGTGCTTTPeuHsf-B2cGGGAAACTCCAACATCCTCACTAGGAGAAAGGGTTGGATTCCAGPeuHsf-B3ATTTGTGGTGTGGCAACCGGCAATAGGTTGTTGCTTGCTAGACPeuHsf-B4aCTAATGGTTCTCTAGTACAGAAGCCCCAATCTTTTCTTTGTTAGTAATGGCPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B4cAGCACCATATGCTACTGCTAATCCGCTCTGCGAAGTAGTTGTTGGAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCTGCATTATAAGCCPeuHsf-B5aTTCAAGCATGAGAAGTTCTTGAGAGTCTCCTCCATGAGTATCAAACGATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCTTGCGAACTATTCTTGPeuHsf-C1TCTCTCAGAGGATTTTGCCTGTTATGCTTCCTGCGAACTATATTCTTC	PeuHsf-A9	CAGCAGAGCGGAGCAGTTACT	GCAATTGTTTGCACTCTGCAG
PeuHsf-B2a/dCGATCATACGATAGACGATGTCGGATTTTCCTCCTTTGTATATTGGCTPeuHsf-B2bCATGGAACGACGATGGATCAAATATCGCGGAGAAGTGCTTTPeuHsf-B2cGGGAAACTCCAACATCCTCACTAGGAGAAAGGGTTGGATTCCAGPeuHsf-B3ATTTGTGGTGTGGCAACCGGCAATAGGTTGTTGCTAGACPeuHsf-B4aCTAATGGTTCTCTAGTACAGAAGCCCCAATCTTTTCTTTGTATGGCPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B4cAGCACCATATGCTACTGCTAATCCGCTCTGCGAAGTAGTTGTTGGAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCTGCATTATAAGCCPeuHsf-B5aTTCAAGCATGAGAAGTTCTTGAGAGTCTCCTCCATGAGTATCAAACGATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCTTTCTGAAACATTPeuHsf-C1TCTCTCAGAGGATTTTGCCTGTTATGCTTCCTGCGAACTATATTCTTC	PeuHsf-B1	GATCCAAGCACTGATGATGTGAT	GGAGCTCTTTGTGTCCTCGC
PeuHsf-B2bCATGGAACGACGATGGATCAAATATCGCGGAGAAGTGCTTTPeuHsf-B2cGGGAAACTCCAACATCCTCACTAGGAGAAAGGGTTGGATTCCAGPeuHsf-B3ATTTGTGGTGTGGCAACCGGCAATAGGTTGTTGCTTGCTAGACPeuHsf-B4aCTAATGGTTCTCTAGTACAGAAGCCCCAATCTTTTCTTTGTTAATGGCPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B4cAGCACCATATGCTACTGCTAATCCGCTCTGCGAAGTAGTTGTTGGAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCTGCATTATAAGCCPeuHsf-B5aTTCAAGCATGAGAAGTTCTTGAGAGTCTCCTCCATGAGTATCAAACGATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCTTTCTGAAACATTPeuHsf-C1TCTCTCAGAGGATTTTGCCTGTTATGCTTCCTGCGAACTATTCTTC	PeuHsf-B2a/d	CGATCATACGATAGACGATGTCG	GATTTTCCTCCTTTGTATATTGGCT
PeuHsf-B2cGGGAAACTCCAACATCCTCACTAGGAGAAAGGGTTGGATTCCAGPeuHsf-B3ATTTGTGGTGTGGCAACCGGCAATAGGTTGTTGCTTGCTAGACPeuHsf-B4aCTAATGGTTCTCTAGTACAGAAGCCCCAATCTTTTCTTTGTTTGTAATGGCPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B4cAGCACCATATGCTACTGCTAATCCGCTCTGCGAAGTAGTTGTTGGAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCTGCATTATAAGCCPeuHsf-B5aTTCAAGCATGAGAAGTTCTTGAGAGTCTCCTCCATGAGTATCAACAATTPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCTTTCTGAAACATTPeuHsf-C1TCTCTCCAGAGGATTTTGCCTGTTATGCTTCCTGCGAACTATTCTTC	PeuHsf-B2b	CATGGAACGACGATGGATCA	AATATCGCGGAGAAGTGCTTT
PeuHsf-B3ATTTGTGGTGTGGCAACCGGCAATAGGTTGTTGCTTGCTAGACPeuHsf-B4aCTAATGGTTCTCTAGTACAGAAGCCCCAATCTTTCTTTGTTATATGGCPeuHsf-B4bTGTCAGGCAGCTCAACACCTACCGCAGTTAGGATATGATCAACACAPeuHsf-B4cAGCACCATATGCTACTGCTAATCCGCTCTGCGAAGTAGTTGTTGGAPeuHsf-B4dTTCAATCTCCAAAACCAAGTACTGAGCTTAGGTGCTGCATTATAAGCCPeuHsf-B5aTTCAAGCATGAGAAGTTCTTGAGAGTCTCCTCCATGAGTATCAAACGATPeuHsf-B5bCATGATAGCGCTCCTCATGGTCCTCCTCCTTTCTGAAACATTPeuHsf-C1TCTCTCAGAGGATTTTGCCTGTTATGCTTCCTGCGAACTATTCTTC	PeuHsf-B2c	GGGAAACTCCAACATCCTCACTA	GGAGAAAAGGGTTGGATTCCAG
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PeuHsf-C1         TCTCTCAGAGGATTTTGCCTGTT         ATGCTTCCTGCGAACTATATTCTTC	PeuHsf-B5b	CATGATAGCGCTCCTCATGGT	CCTCCTCCCTTTCTGAAACATT
	PeuHsf-C1	TCTCTCAGAGGATTTTGCCTGTT	ATGCTTCCTGCGAACTATATTCTTC