Hewitson et al., Supplementary Figure 1

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VAL-1.1	TTCPGNS	GVT	DAAI	RTA	AL	DA	IN	EA	RR	ТА	VN	GL	МÇ	2 N	G I	ъΤ	AG	T	NL	PI	HG	S I	NN	YN	1 L	E	WD	C N	LI	ΕА
VAL-1.2	TTCPSTS	GVT	DAA	RTA	AL	DA	IN	QA	RR	ТА	V N	GL	мç	рN	G Z	A N	AG	T	N L	P	HG	S I	ми	Y N	1 L	ΕI	W D	CN	LI	ΕА
VAL-1.4	TTCTSNT	GVTI	DAAI	RTA	AL	DA	IN	QN	RR	ТА	V N	GL	LC	2 N	G A	A N	AG	T	N L	P	HG	QI	ми	YK	L	D	WD	CG	LI	E G
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VAL-1.2	LAGVMVP	NDC	SAP	TAG	LP	N N	GL	S A	a v	νт	PA	PA	TA	A D	Αĭ	7 м	то	G	V A	TI	N P	PI	LL	õv		A	N A	FA	TI	ΡA
VAL-1.4	LAEVLLT	NDC	SAP	тTT	LP	N N	GI	GS	a v	VТ	РА	РА	VN		DI	F	Г	G	TA	т	W P	P I	L L	<u>т</u> -	. –		N A	L N	"N 1	РА
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VAL-1.1	TLAVFPG	250 GAG	GTG	GTG	GS	260 G G	TG	GT	GG	TG	270 G A	NT	RC	C P	QN	I P	280 Q M	I T	DD	LI	RY	LI	29 7 R	0 D M	4 H	N	YR	RS	E	300 F A
VAL-1.1 VAL-1.2	T L A V F P G T L A V F P G	250 GAG GAG	G T G (G T G (G T G G T G	G S G S	260 G G G G	T G T G	G T G S	G G G G	тG	270 G A G A	N T N T	RC	C P C P	Q N Q N	I P I P	280 Q M Q M	I T I T			R Y R Y		29 7 R 7 R	0 D M D M	4 H 4 H	N N	Y R Y R	R S R S	E	300 ГА ГА
VAL-1.1 VAL-1.2 VAL-1.4	T L A V F P G T L A V F P G T S A V F P -	250 GAG GAG	G T G (G T G (G T G G T G 	GS GS	260 GG GG	T G T G 	GT GS	G G G G 	T G T G T G	270 G A G A G A	N T N T N T	R C R C R C	C P C P C P	4 Q 4 Q 4 Q	1 P 1 P 1 P	280 QM QM QM	1 T 1 T 1 T	D D D K		RY RY RY		29 FR FR FR	0 D M D M D M	4 H 4 H 4 H	N N N	YR YR YR	R S R S R S	E S E S	300 ГА ГА ГА
VAL-1.1 VAL-1.2 VAL-1.4	T L A V F P G T L A V F P G T S A V F P -	250 GAGG GAG	G T G (G T G (G T G G T G 	GS GS	260 GG GG 	T G T G 	G G S 	G G G G 	T G T G T G	270 G A G A G A	N T N T N T	R C R C R C	C P C P C P	1 Q Q 1 Q 1 Q 1	1 P 1 P	280 Q M Q M Q M	(T (T (T	D D D D D K		R Y R Y R Y		29 7 R 7 R 7 R	D M D M D M	4 H 4 H 4 H	N N N	Y R Y R Y R	R S R S R S	E S E S	300 ГА ГА ГА
VAL-1.1 VAL-1.2 VAL-1.4	T L A V F P G T L A V F P G T S A V F P -	250 G A G G G A G G	G T G (G T G (G T G G T G 	GS GS	260 G G G G 	T G T G 	GT GS	6 6 6 6 	T G T G T G	270 G A G A G A	N T N T N T	R C R C R C	C P C P C P	4 Q 4 Q 4 Q	1 P	280 Q M Q M Q M	(T (T (T	D D D D K		R Y R Y R Y		29 7 R 7 R 7 R	D M D M D M	4 H 4 H 4 H	N N N	Y R Y R Y R	R S R S R S	E S E S	300 F A F A F A
VAL-1.1 VAL-1.2 VAL-1.4	T L A V F P G T L A V F P G T S A V F P –	250 G A G G G A G G 	GTG GTG 	GTG GTG 	GS GS	260 G G G G	T G T G 	GT GS 	G G G G 	T G T G T G	270 G A G A 330	N T N T N T	R C R C R C	C P C P C P	1 Q 1 Q 1 Q	1 P 1 P	280 Q M Q M 340		D D D D K		R Y R Y R Y		29 7 R 7 R 7 R 35		4 H 4 H 4 H	N N N	Y R Y R Y R	R S R S R S	E	300 F A F A F A S60
VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1	T L A V F P G T L A V F P G T S A V F P -	250 G A G G G A G G 310 T G N	GTG GTG 	GTG GTG SSS	GS GS 	260 G G G G 320 Q Y	T G T G 	GT GS 	G G G G 	T G T G T G L E	270 G A G A 330 V T	N T N T N T	R C R C R C	C P C P C P			280 Q M Q M 340 P G		D D D K L I		R Y R Y R Y S G		29 7 R 7 R 7 R 35		4 H 4 H 4 H	N N N	Y R Y R Y R I G	R S R S R S	E	300 F A F A F A 360 F T
VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2	T L A V F P G T L A V F P G T S A V F P -	250 G A G G A G G A G 3 10 T G N T G N	GTG GTG 	GTG GTG SSS SS TSS	GS GS NM NM	260 G G G G - - 320 Q Y Q Y	T G T G 	GT GS YS YS	G G G G C P C P	T G T G T G	270 G A G A 330 V T V T	N T N T N T	R C R C R C			C C C	280 Q M Q M Q M 340 P G		D D D K L I L I		R Y R Y S G S G	L I L I L I R I R I	29 7 R 7 R 35 1 I 1 I		4 H 4 H 2 V 2 V	N N P P	Y R Y R Y R I G I G	R S R S R S		300 F A F A 360 F T F T
VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4	T L A V F P G T L A V F P G T S A V F P -	250 G A G G G A G G 310 T G N T G N T G N	GTG GTG YLP YLP YLP	GTG GTG SSS SS KSS	GS GS NM NM	260 G G G G 320 Q Y Q Y	T G T G M R M R M R	G T G S Y S Y S Y S	G G G G C P C P C P	T G T G T G L E L E	270 G A G A G A 330 V T V T V T	N T N T N T A I A I A I	R C R C R C Q I Q I Q V	C P C P C P C A C A C A		1 P 1 P 1 P	280 Q M Q M Q M 340 P G P G P T	T T S P	DD DK LI LI LI		R Y R Y R Y S G S G S G	L I L I L I R I R I	29 7 R 7 R 7 R 35 1 I 1 I 1 I 1 I		4 H 4 H 2 V 2 V 2 V	N N P P	Y R Y R Y R I G I G I G	R S R S R S A Y A Y A Y	E ? E ? T I T I	300 F A F A F A F T F T Y T
VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4	T L A V F P G T L A V F P G T S A V F P -	250 G A G G G A G G G A G G G A G G T G N T T G N T G N	GTG GTG GTG YLP YLP	GTG GTG SSS SS KSS	GS GS NM NM NM	260 G G G G 320 Q Y Q Y Q Y	T G T G M R M R M R	GT GS YS YS YS	G G G G C P C P C P	T G T G T G L E L E	270 G A G A G A 330 V T V T V T	N T N T A I A I A I	R C R C R C Q I Q I	C P C P C P			280 Q M Q M Q M 340 P G P G	T T S P	DD DK LI LI LI	L I L Q Q Q	R Y R Y R Y S G S G S G	L I L I L I R I R I	29 7 R 7 R 7 R 35 1 I 1 I 1 I 1 I		4 H 2 V 2 V 2 V	N N P P	Y R Y R Y R I G I G I G	R S R S R S A Y A Y A Y	E S E S T I T I	300 F A F A F A 360 F T F T Y T
VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4	T L A V F P G T L A V F P G T S A V F P –	250 G A G G G A G G G A G G G A G G G A G G T G N T T G N T T G N	GTG GTG GTG YLP YLP YLP	G T G G T G S S S T S S K S S	GS GS NM NM	260 G G G G 320 Q Y Q Y Q Y	T G T G M R M R M R	GT GS 	G G G G C P C P C P	T G T G T G L E L E	270 G A G A G A 330 V T V T V T	N T N T N T A I A I	R C R C R C Q I Q I Q I	C P C P C P		1 P 1 P 1 P	280 Q M Q M 340 P G P G P T	T T S P	D D D K L I L I L I		RY RY SG SG SG	L I L I L I R I R I R I	29 7 R 7 R 7 R 35 1 I 1 I 1 I		4 H 4 H 4 H 2 V 2 V 2 V	N N N P P A	Y R Y R Y R I G I G I G	R S R S R S A Y A Y A Y	E S E S T 1 T 1 T 1	300 F A F A F A 360 F T F T Y T
VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.1 VAL-1.2 VAL-1.4	T L A V F P G T L A V F P G T S A V F P –	250 G A G G G A G G G A G G 310 T G N T G N T G N 370	GTG GTG GTG YLP YLP	G T G G T G S S S T S S K S S	GS GS NM NM NM	260 G G G G 320 Q Y Q Y Q Y 380	T G T G M R M R M R	G T G S Y S Y S Y S	G G G G C P C P C P	T G T G T G L E L E	270 G A G A 330 V T V T 390	N T N T A I A I A I	R C R C R C Q I Q I Q V	CP CP CP		N P N P N P C C C C C C	2800 Q M Q M Q M 3400 P G P G P T 4000	T T S P	D D D D K L I L I L I		RY RY RY SG SG SG	L 1 L 1 L 1 R 1 R 1 R 1	29 7 R 7 R 7 R 35 1 I 1 I 1 I 1 I 1 1 41		4 H 4 H 4 H 2 V 2 V 2 V	N N P P A	Y R Y R Y R I G I G	R S R S R S A Y A Y A Y		300 F A F A F A 360 F T F T Y T
VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.4	T L A V F P G T L A V F P G T S A V F P -	250 G A G G G A G G G A G G T G N T G N T G N T G N 370 K S L 1	GTGG GTGG YLP YLP	GTGTGT GTGT SSSS SSS KSSS KSSS	GS GS NM NM NM VN	260 G G G G G G 320 Q Y Q Y Q Y 380 G P	T G T G M R M R M R	G T G S Y S Y S Y S Y S	G G G G C P C P C P T F	T G T G L E L E K A	270 G A G A 330 V T V T 390 Q H	N T N T A I A I A I	R C R C R C Q I Q I Q V		Q N Q N Q N S J S J	I P I P I P I P I P I P I C C C C C C C C C	2800 Q M Q M Q M 3400 P G P T 4000 T Q	IT IT S P P	DD DK LII LII LX		R Y R Y R Y S G S G S G A S	L I L I L I R I R I R I	299 7 R 7 R 7 R 35 1 I 1 I 1 I 1 I 1 I 1 I 1 I 1 I 1 I 1 I	0 D M D M D M G Q G Q G Q G Q G Q G Q G Q G Q G Q	4 H 4 H 4 H 2 V 2 V 2 V 2 V	N N P P A	Y R Y R Y R I G I G I G	R S R S R S A Y A Y A Y C P	E S E S T I T I T I	300 F A F A 360 F T F T Y T 420 A Y
VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2	T L A V F P G T L A V F P G T S A V F P -	250 G A G G G A G G G A G G T G N T G N T G N T G N 370 K S L N K S L N	GTGG GTGG YLP YLP YLP	GTG GTG GTG SSSS SS SS SS S S S S S S S	GS GS NM NM NM VN VN	260 G G G G G 320 Q Y Q Y Q Y 380 G P G P	T G T G M R M R M R G M G M	G T G S Y S Y S Y S Y S V V V V V	G G G G C P C P C P T F T F	T G T G T G L E L E K A K A	270 G A G A G A 330 V T V T V T V T 390 Q H Q H	N T N T N T A I A I A I V G V G	R C R C R C U U U U U U U	C P C P C P C P C P C P C P C P C P C P	Q M Q M Q M S J S J S J A S	P P P P C C C C C C C C C C C C C C C C	2800 Q M Q M Q M 3400 P G P T 4000 T Q T Q	T T T P P	D D D C K L I L I L I A W	L I I Q S Q S A A A	R Y R Y R Y S G S G S G A S	L I L I L I R I R I R I R I	299 7 R 7 R 7 R 355 1 I 1 I 1 I 1 I 1 I 1 I 1 I 1 R 1 R 1 R 1 R	0 D M D M D M G Q G Q G Q G Q G Q G Q G Q G Q G Q	4 H 4 H 4 H 2 V 2 V 2 V 2 V 2 V	N N N P P A X	Y R Y R Y R I G I G I G I G A R	R S R S R S A Y A Y A Y C P C P	E : E : E : T) T) T)	300 F A F A F A F T F T F T 420 A Y A Y
VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4	T L A V F P G T L A V F P G T S A V F P - L G R T I K N L G R T I K N	250 G A G G G A G G G A G G G A G G 310 T G N T G N T G N 370 K S L 1 K S L 1 K S L 1	GTGG GTGG GTGG YLP YLP YLP YLP WRV WRV WRV	GTG GTG TG SSS SS TSS KSS KSS VRQ VRQ VRQ	GS GS NM NM NM VN VN VN VN	260 G G G G G G 320 Q Y Q Y Q Y 380 G P G P G P	T G T G M R M R M R G M G M	GT GS S YS YS YS QV V KV	G G G G C P C P C P T F T F	T G T G T G L E L E L E K A K A K A	270 G A G A G A S 3300 V T V T V T V T V T V T V T V T V T V T	N T N T N T A I A I A I V G V G V G	R C R C R C R C I Q I Q I Q V V T F T F		Q M Q M Q M S J S J S J A S A S	N P N P C C C C C C C C C C C C C C C C C C C	2800 Q M Q M Q M 3400 P G P G P T 4000 T Q T Q	I T I T I T P P M M	D D D K L I L I L I A W A W	L I I I L I Q S Q S Q S Q S Q S A J A J	RY RY RY SG SG SG SG SG AS S A S	L I L I L I R I R I R I R I R I	29 F R F R F R 35 L I L I L I L I L I L I R L R L	0 D M D M D M C M G Q G Q G Q G Q G Q G Q G Q G Q G Q G Q	4 H 4 H 4 H 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V	N N P P A A V V	Y R Y R Y R I G I G I G I G A R A R A R	R S R S R S A Y A Y A Y C P C P C P	E ? E ? E ? T I T I T I T I	300 F A F A F A S 360 F T F T F T 420 A Y A Y A Y
VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4	T L A V F P G T L A V F P G T S A V F P - L G R T I K N L G R T I K N L G R T I K N L G R T I K N T A T Q E I V T A T Q E I V	250 G A G G G A G G G A G G 310 T G N T G N T G N 370 K S L 1 K S L 1 K S L 1	GTG GTG GTG YLP YLP YLP WRV WRV WRV	GTG GTG SSS SSS TSSS KSSS VRQ VRQ VRQ	GS GS NM NM NM VN VN VN	260 G G G G G G 320 Q Y Q Y 380 G P G P G P	T G T G M R M R G M G M	G T G S F - Y S Y S Y S V V V V K V	G G G G C P C P C P C P T F T F	T G T G T G L E L E L E K A K A K A	270 G A G A G A J J J V T V T V T V T V T V T Q H Q H Q H	N T N T N T A I A I A I V G V G V G	R C R C R C R C I Q I Q I Q I Q V		Q N Q N Q N S J S J A S A S A S	V P V P V P C C C C C C C C C C C C C C C C S F S F	2800 Q M Q M 3400 P G P T 4000 T Q T Q	I T I T S P P	DDK LIILI AW AW	L 1 I 1 L 1 Q 2 Q 2 Q 2 A 1 A 1	R Y R Y S G S G S G S G A S A S	L I L I L I R I R I R I R I R I R I	29 F R F R 35 L I L I L I A1 R L R L		4 H 4 H 4 H 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V	N N N P P A V V V V	Y R Y R I G I G I G A R A R A R	R S R S R S A Y A Y A Y C P C P C P	E : E : T 1 T 1 T 1 T 1 T 1 T 1	300 F A F A 360 F T F T Y T 420 A Y A Y
VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.2	T L A V F P G T L A V F P G T S A V F P G L G R T I K N L G R T I K N L G R T I K N T A T Q E I V T A T Q E I V T A T R E I V	250 G A G G G A G G G A G G T G N T G N T G N 370 K S L 1 K S L 1 K S L 1	GTGG GTGG YLP YLP WRV WRV WRV WRV	GTG GTG SSSS SSS SSS SSS S SSS S S S S S	GS GS NM NM NM VN VN VN VN	260 G G G G G G 320 Q Y Q Y 380 G P G P G P	T G T G 	GT GS YS YS QV KV	G G G G C P C P C P C P T F T F	T G T G T G L E L E K A K A K A	2700 G A G A G A S 3300 V T V T V T V T V T V T Q H Q H Q H	N T N T N T A I A I A I V G V G V G	R C R C R C R C I Q I Q I Q I Q I Q I V V		Q N Q N S T S T S T S T	N P N P C C C C C C C C C C C C C C C C C C C	2800 Q M Q M 3400 P G P T 4000 T Q T Q	T T T P P	DDK LIILI AW AW	L 1 I 1 L 1 Q 2 Q 2 Q 2 Q 2 A 1 A 1 A 1	R Y R Y S G S G S G A S A S A S	L 1 L 1 L 1 R 1 R 1 R 1 R 1 R 1 R 1 R 1	29 F R F R 35 L I L I L I L I R L R L R L		4 H 4 H 4 H 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V	N N N P P A A V V V	Y R Y R I G I G I G A R A R	R S R S R S A Y A Y A Y C P C P C P	E : E : T) T) T) T) T)	300 F A F A 360 F T F T Y T 420 A Y A Y
VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4	T L A V F P G T L A V F P G T S A V F P -	250 G A G G G A G G G A G G G A G G T G N T S L N K S L N K S L N K S L N	G T G G G T G G Y L P Y L P Y L P W R V W R V W R V	GTG GTG SSSS SSS KSSS KSSS VRQ VRQ	GS GS NM NM NM VN VN VN VN VN	260 G G G G G G C C C C C C C C C C C C C	T G T G T G T G T T T T T T T T T T T T	GT GS T- YS YS QV V KV	G G G G C P C P C P T F T F	T G T G T G L E L E K A K A K A	2700 G A G A G A G A S 3300 V T V T V T V T V T V T V T V T 4500	N T N T N T A I A I A I V G V G V G	R C R C R C I Q I Q I Q I Q I Q I V		Q M Q M Q M S J S J S J S J A S A S		280 Q M Q M Q M 3400 P G P G P T 4000 T Q T Q 4600		DDK LIILI LX	L I I I L I Q S Q S Q S A J A J	R Y R Y S G S G S G A S A S	L I L I L I R I R I R I R I R I	29 7 R 7 R 7 R 7 R 7 R 7 R 1 L 1 L 1 L 1 L 1 L 1 L 1 L 1 L 1 L 1 L		4 H 4 H 4 H 2 V 2 V 2 V 2 V 2 V 2 V 2 V 2 V	N N P P A A V	Y R Y R I G I G I G I G A R A R	R S R S R S A Y A Y A Y C P C P C P	E : E : T 1 T 1 T 1 T 1 T 1 T 1 T 1	300 F A F A F T F T Y T 420 420 A Y A Y A Y
VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4 VAL-1.1 VAL-1.2 VAL-1.4	I L A V F P G I L A V F P G I S A V F P - L G R T I K N L G R T I K N L G R T I K N L G R T I K N T A T Q E I V T A T Q E I V T A T Q E I V T A T Q E I V	250 G A G G G A G G G A G G G A G G T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N T G N	GTGG GTGG YLP YLP YLP WRV WRV WRV	G T G G T G G T G S S S S S S S S S S S S S V R Q V R Q V R Q V R Q	G S (G S (G S (N M (N M (N M (V N (V (V N (V	260 G G G G G G G G C C C C C C C C C C C C C	T G T G T G T T T T T T T T T T T T T T	G T G S S V S V S V S V S V V V V V V V V V V	G G G G C P C P C P T F T F T F T F	T G T G T G L E L E L E K A K A K A K A	270 G A G A G A G A S 330 V T V T V T V T V T V T V T V T V T V T	N T N T N T A I A I A I V G V G V G V G V G	R C R C R C I Q I Q I Q I Q I Q I Q I Q I Q I T F T F T F T F C T		Q M Q M Q M S T S T S T A S A S A S A S	1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P 1 P	280 Q M Q M Q M 3400 P G P G P T 4000 T Q T Q 4600 L C		DD DK LII LI I X W X W X V LP	L I I I L I Q S Q S Q S A J A J	R Y R Y R Y S G S G S G A S A S	L I L I R I R I R I R I R I	29 7 R 7 R 7 R 7 R 7 R 7 R 1 I 1 I 1 I 1 I 1 I 1 I 1 I 1 I 1 I 1 I		4 H 4 H 2 V 2 V 2 V 2 V 2 V 2 V 2 V	N N P P A V	Y R Y R I G I G I G A R A R	R S R S R S A Y A Y A Y C P C P C P	E : E : T 1 T 1 T 1 T 1 T 1 T 1	300 F A F A F T F T Y T 420 420 A Y A Y A Y

VAL-1.2 VAVCNYEPIGNIVGQQIYTPGTPCTACTYGSTCTATQGLCTLP VAL-1.4 VVVCNYEPIGNIVGQQIYTPGTPCTACTYGSTCTATQGLCTLP Method: Neighbor Joining; Bootstrap (1000 reps); tie breaking = Systematic Distance: Uncorrected ("p") Gaps distributed proportionally



Replace tree with table detailing Mw / pI / related sequences in HES



No. of amino acids in mature protein

Hewitson et al., Supplementary Figure 3

