





Base	2334																							2414				
	A	D	D	T	V	L	E	E	M	S	L	P	G	R	W	K	P	K	M	I	G	G	I	G	G	F	I	
HXB2	GCA	GAT	GAT	ACA	GTA	TTA	GAA	GAA	ATG	AGT	TTG	CCA	GGA	AGA	TGG	AAA	CCA	AAA	ATG	ATA	GGG	GGA	ATT	GGA	GGT	TTT	ATC	
CONS_B	---	---	---	---	---	---	---	---	---	-A-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX207	---	---	---	---	---	---	---	-C	---	-A-	-A	---	-G	---	---	-G	---	---	---	---	---	---	---	---	---	---	---	
MX066	-G	---	---	---	-C	---	---	-C	-A	GA-	---	---	---	---	---	-G	---	---	---	---	---	---	---	---	---	---	---	
MX470	---	---	---	---	---	---	---	-C	---	-A-	---	---	T	---	---	---	-G	---	---	---	---	---	---	---	---	---	---	
MX474	-G	---	---	---	---	---	---	---	---	GAK	---	-G	-G	-R	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX125	---	---	---	---	---	---	---	-C	---	-A-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX527	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-G	---	---	---	---	---	---	---	---	
MX050	---	---	---	---	---	---	---	-C	---	CA-	---	---	---	-A	---	-G	---	---	---	---	---	---	---	---	---	-C	---	
MX395	---	---	---	---	---	---	---	-C	---	-A-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX352	---	---	-C	---	---	---	---	-C	---	-A-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX473	---	---	---	---	---	---	---	---	---	-A-	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX401	---	---	---	---	---	---	---	-K	---	---	---	---	-G	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX160	---	---	---	---	-G	---	---	---	---	-A-	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX350	---	---	---	---	---	---	---	-C	---	GA-	-A	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX324	---	---	---	---	---	---	---	---	---	-A-	---	---	---	-A	---	-G	---	---	---	---	---	---	---	---	---	---	---	
MX313	---	---	---	---	---	---	---	---	---	-A-	---	---	---	-A	---	-G	---	---	---	---	---	---	---	---	---	---	---	
MX542	---	---	---	---	---	---	---	-C	---	---	---	---	---	-A	---	-G	---	---	---	---	---	---	---	A	---	---	-T	
MX390	---	---	---	---	---	---	---	---	---	-A-	---	---	---	-A	---	-G	---	---	---	---	---	---	---	---	---	-C	---	
MX376	---	---	---	---	---	---	---	-C	---	-A-	---	---	---	-A	---	-G	---	---	---	---	---	---	---	---	---	---	---	
MX399	---	---	---	---	---	---	---	-C	-A	-A-	---	---	---	-A	---	-G	---	---	---	---	---	---	---	---	---	---	---	
MX370	---	---	---	---	---	---	---	-C	---	GAG	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX384	---	---	---	---	---	---	---	-T	---	CAG	---	---	---	-A	---	---	---	---	-G	---	---	A	---	---	---	---	---	
MX230	---	---	---	---	---	---	---	-T	-A	GAG	---	---	-AG	---	-A	---	---	---	---	---	---	A	-A	---	---	---	---	
MX355	---	---	---	---	-G	---	---	-T	---	GAG	---	---	---	---	---	---	---	---	---	---	---	---	---	A	---	A	-A	---
MX463	---	---	---	---	---	---	---	---	-A	-A	---	---	-R	---	---	---	---	---	---	T	-A	---	---	---	---	---	-T	
MX381	---	---	---	---	---	---	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	A	---	---	---	---	---	
MX439	---	---	---	---	-G	---	---	---	---	-A	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	-T	
MX494	---	---	---	---	-G	---	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-T	
MX110	---	---	-C	---	---	---	---	---	---	-A	---	---	---	-A	---	---	---	---	-G	---	---	---	---	---	---	---	-T	
MX545	---	---	---	---	---	---	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX433	---	---	---	---	---	---	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX398	---	---	---	---	---	---	---	---	---	-AC	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX057	---	---	---	---	---	---	---	---	-A	GA-	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX210	---	---	---	---	G	---	---	---	---	GA-	---	---	---	-A	---	---	---	---	-G	---	---	---	---	---	---	---	---	
MX540	---	---	---	---	---	---	---	-C	-A	GA-	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX296	---	---	---	---	---	---	---	---	-A	GA-	---	---	---	-R	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX459	---	---	---	---	---	---	---	---	---	-CG	---	---	---	-R	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX071	---	-Y	---	---	-G	---	---	-R	---	-A	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX464	---	---	---	---	---	---	---	---	---	-A	---	---	---	-R	---	-G	---	---	---	---	---	---	---	---	---	---	---	
MX385	---	---	---	---	---	---	---	---	---	-A	---	---	T	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX450	---	---	---	---	---	---	---	---	-A	-A	---	---	---	-A	---	---	---	---	-R	---	---	---	---	---	---	---	---	
MX354	---	---	---	---	---	---	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX553	---	---	---	---	-G	---	---	---	---	GA-	---	---	-G	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX469	---	---	---	---	---	---	---	-C	C	-A	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX546	---	---	---	---	---	---	---	-C	---	-A	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX086	---	---	---	---	---	---	---	---	---	-A	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX422	---	---	---	---	---	---	---	---	---	-A	-A	---	---	---	---	T	---	---	---	---	---	A	---	---	---	---	---	
MX554	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX476	---	---	---	---	---	---	---	---	-A	-A	-R	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX327	---	---	---	---	---	---	---	---	---	-C	---	T	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
CONS_D	---	---	---	---	---	---	---	---	---	-A	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX172	---	---	---	---	---	---	---	---	---	-A	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
CONS_F1	---	---	---	---	---	---	---	-C	-A	-A	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
CONS_F2	---	---	---	---	---	---	---	-T	-A	-A	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
CONS_H	---	---	---	---	---	---	---	---	---	-A	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
CONS_A2	---	---	---	---	-G	---	---	-C	-A	-A	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
CONS_C	---	---	---	---	---	---	---	---	---	-A	---	---	---	-A	---	---	---	---	---	---	---	-A	---	---	---	---	---	
CONS_A1	---	---	---	---	---	---	---	-C	-A	-A	---	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	-C	
CONS_G	---	---	---	---	---	---	---	---	---	-A	-A	-A	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
MX460	---	---	-C	---	---	---	---	---	-A	GA-	-A	---	---	-A	---	---	---	---	---	---	---	---	---	---	---	---	---	
CONS_O	---	---	---	---	---	C	A	A	C	-A	CAA	L	GA-	-A	---	-C	---	---	---	---	---	---	---	---	---	---	---	
Residue	28		30										40															

Elbow region
(S37 – K43)

Tip of the flap region
(G49 – G52)



Base	2496												2549					
	V	N	I	I	G	R	N	L	L	T	Q	I	G	C	T	L	N	F
HXB2	GTC	AAC	ATA	ATT	GGA	AGA	AAT	CTG	TTG	ACT	CAG	ATT	GGT	TGC	ACT	TTA	AAT	TTT
CONS_B	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MX207	---	---	---	---	---	---	-C	---	---	---	---	C-	---	---	---	---	---	---
MX066	---	---	---	---	---	---	-C	---	---	---	---	C-	---	---	---	---	---	---
MX470	---	---	---	---	---	---	---	---	---	---	---	C-	-G	-Y	---	---	---	Y
MX474	---	---	---	---	---	---	---	---	-A	---	---	C-	---	---	---	---	---	---
MX125	---	---	---	---	---	---	---	---	-A	---	---	C-	---	---	---	---	---	---
MX527	---	---	---	---	---	---	---	---	---	---	-R	C-	-K	---	---	---	---	---
MX050	---	-T	---	---	---	---	---	T-	-A	---	---	---	---	---	---	---	---	---
MX395	-T	---	---	---	---	---	---	---	-A	---	---	---	---	---	---	---	---	---
MX352	-T	---	---	---	---	---	---	---	-A	---	---	---	---	---	---	---	---	---
MX473	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MX401	-T	---	---	---	---	---	---	-A	---	---	---	---	---	---	---	---	---	---
MX160	A-	---	---	---	---	---	---	T-	---	---	---	---	C	-T	---	---	---	---
MX350	---	---	---	---	---	-G	---	---	---	---	---	C-	---	---	---	---	---	---
MX324	---	-T	---	---	---	---	---	---	---	---	---	C-	-C	-T	C	---	---	---
MX313	---	---	---	---	---	---	---	---	---	---	-A	C-	-C	---	---	---	---	---
MX542	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MX390	---	---	---	---	---	---	---	---	---	---	---	C-	---	---	---	---	---	---
MX376	---	---	---	---	---	---	---	---	---	---	---	C-	---	---	---	---	---	---
MX399	-A	---	---	---	---	---	---	---	---	---	---	C-	---	---	---	---	---	---
MX370	-Y	---	---	---	---	---	---	---	---	---	---	C-	---	---	---	---	---	---
MX384	---	---	---	---	---	---	---	---	---	---	---	C-	---	-T	---	---	---	---
MX230	A-	---	---	---	A-	---	---	---	---	---	---	C-	-C	---	C	---	---	---
MX355	---	---	---	---	---	---	---	---	---	---	---	C-	---	---	---	---	---	C
MX463	---	---	---	---	---	---	---	-A	---	---	---	C-	---	---	---	---	---	---
MX381	---	---	---	---	---	---	---	---	---	---	---	C-	---	---	---	---	---	C
MX439	---	---	---	---	---	---	---	---	---	---	---	C-	---	---	---	---	---	C
MX494	---	---	---	---	---	---	---	---	---	---	---	C-	---	---	---	---	---	C
MX110	---	---	---	---	---	-C	---	---	---	---	---	C-	---	-T	---	---	---	---
MX545	---	---	---	---	---	---	---	T-	---	---	---	C-	---	-T	C	---	---	---
MX433	---	---	---	---	---	-C	---	T-	---	---	---	C-	---	-T	C	---	---	---
MX398	---	---	---	---	---	---	---	T-	---	---	---	C-	---	-T	C	---	---	---
MX057	---	---	---	---	---	---	---	---	---	---	---	C-	---	---	---	---	---	---
MX210	---	---	---	---	---	---	---	---	---	---	---	C-	---	---	---	---	---	---
MX540	---	---	---	---	---	---	---	---	---	---	---	C-	---	---	---	---	---	---
MX296	---	---	---	---	---	---	---	---	---	---	---	C-	---	-T	---	---	---	---
MX459	---	---	---	---	---	---	---	---	---	---	---	C-	-A	---	A	---	---	---
MX071	---	---	---	---	---	---	---	A-	---	---	---	C-	-R	---	C	---	---	---
MX464	-T	-T	---	---	---	---	---	---	---	GTC	---	C-	-C	---	---	---	---	---
MX385	-T	---	---	---	---	---	---	---	---	GT-	---	C-	-G	---	---	---	---	---
MX450	---	---	---	---	---	---	---	---	---	GT-	---	C-	-G	-T	---	---	---	C
MX354	---	---	---	---	---	---	---	---	---	GT-	---	C-	-G	-T	---	---	---	C
MX553	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MX469	---	---	---	---	---	---	---	T-	---	---	---	C-	---	-T	---	---	---	---
MX546	---	---	---	---	---	-G	---	T-	-A	---	---	C-	---	---	---	---	---	---
MX086	---	---	---	---	---	---	---	-A	---	---	---	C-	---	-T	---	---	---	---
MX422	---	---	---	---	---	---	---	-R	---	---	---	M	-Y	---	---	---	---	---
MX554	---	---	---	---	---	---	---	---	---	---	---	A	---	---	---	---	---	---
MX476	---	---	---	---	---	---	---	---	---	---	---	A	---	---	---	---	---	---
MX327	---	---	---	---	---	---	---	---	---	---	---	A	---	---	---	---	---	---
CONS_D	---	---	---	---	---	---	---	T-	---	-C	---	---	C	---	---	---	---	---
MX172	---	---	---	---	---	---	-Y	---	---	---	---	C	---	-Y	---	---	---	---
CONS_F1	---	---	---	---	---	---	---	A-	---	---	---	---	---	-T	---	---	---	---
CONS_F2	---	---	---	---	---	---	---	A-	---	---	---	---	---	---	---	---	---	---
CONS_H	---	-T	---	---	---	-G	---	A-A	---	-A	---	---	---	---	C	---	---	---
CONS_A2	---	---	---	---	---	---	---	A-	---	GT-	---	C-	---	-T	---	---	---	---
CONS_C	---	---	---	---	---	---	---	A-	---	---	---	C-	-A	---	A	C	---	---
CONS_A1	---	---	---	---	---	---	---	A-	---	-C	---	---	---	-T	---	---	---	C
CONS_G	A-	---	---	---	---	-G	---	A-	---	---	---	---	---	-T	---	---	---	---
MX460	A-A	---	---	---	---	-G	C-G	---	---	---	---	---	---	-T	---	---	---	G
CONS_O	-T	-T	-T	---	---	---	-C	A-A	---	-A	GGA	T-	---	-T	A	C	---	C
Residue	82				90				99									

C-terminal triad (G86 – N88)

C-terminal dimerization region (T96 – F99)



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