

SEQUENCE LISTING

<110> FOUNDATION FOR BIOMEDICAL RESEARCH AND INNOVATION AT KOBE

<120> PREDICTION METHOD FOR POTENTIAL FOR DIFFERENTIATION IN PLURIPOTENT STEM CELL AND REAGENT THEREFOR

<130> 092685

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<212> DNA

<213> Homo sapiens

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<221> CDS

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Arg	Val	Arg	Met	Leu	Tyr	Tyr	Leu	Arg	Gln	Glu	Val	Ile	Gly	Asp	
				1745					1750					1755	
cag	gcg	gat	aag	atc	tta	gag	ggt	gct	gac	tca	agt	gaa	gcc	gat	5802
Gln	Ala	Asp	Lys	Ile	Leu	Glu	Gly	Ala	Asp	Ser	Ser	Glu	Ala	Asp	
				1760					1765					1770	
gtg	tgg	atc	cct	gaa	cct	ttc	cat	gct	gaa	gtt	cct	gca	gat	tgg	5847
Val	Trp	Ile	Pro	Glu	Pro	Phe	His	Ala	Glu	Val	Pro	Ala	Asp	Trp	
				1775					1780					1785	
tgg	gat	aag	gaa	gca	gac	aaa	tcc	ctc	tta	att	gga	gtg	ttc	aaa	5892
Trp	Asp	Lys	Glu	Ala	Asp	Lys	Ser	Leu	Leu	Ile	Gly	Val	Phe	Lys	
				1790					1795					1800	
cat	ggc	tat	gag	aag	tac	aac	tcc	atg	cga	gct	gac	ccc	gcg	ctg	5937
His	Gly	Tyr	Glu	Lys	Tyr	Asn	Ser	Met	Arg	Ala	Asp	Pro	Ala	Leu	
				1805					1810					1815	
tgc	ttt	ctg	gaa	cga	gtc	ggt	atg	cct	gat	gcc	aag	gcc	ata	gct	5982
Cys	Phe	Leu	Glu	Arg	Val	Gly	Met	Pro	Asp	Ala	Lys	Ala	Ile	Ala	
				1820					1825					1830	
gcc	gag	caa	aga	gga	aca	gac	atg	cta	gca	gat	ggt	ggt	gac	ggg	6027
Ala	Glu	Gln	Arg	Gly	Thr	Asp	Met	Leu	Ala	Asp	Gly	Gly	Asp	Gly	
				1835					1840					1845	

gga gaa ttt gat aga gaa gat gaa gac cca gaa tat aaa cca acc	6072
Gly Glu Phe Asp Arg Glu Asp Glu Asp Pro Glu Tyr Lys Pro Thr	
1850 1855 1860	
aga aca ccg ttc aaa gat gaa ata gat gaa ttt gca aat tct cct	6117
Arg Thr Pro Phe Lys Asp Glu Ile Asp Glu Phe Ala Asn Ser Pro	
1865 1870 1875	
tca gag gat aag gaa gaa tcc atg gaa ata cat gcc aca ggc aag	6162
Ser Glu Asp Lys Glu Glu Ser Met Glu Ile His Ala Thr Gly Lys	
1880 1885 1890	
cac agt gag agt aat gct gag tta ggc caa ctt tac tgg cct aac	6207
His Ser Glu Ser Asn Ala Glu Leu Gly Gln Leu Tyr Trp Pro Asn	
1895 1900 1905	
act tca acc ctg act aca cgt ctg cgc cgg ctc att act gcc tat	6252
Thr Ser Thr Leu Thr Thr Arg Leu Arg Arg Leu Ile Thr Ala Tyr	
1910 1915 1920	
cag cgc agc tat aaa agg caa cag atg agg caa gag gcc cta atg	6297
Gln Arg Ser Tyr Lys Arg Gln Gln Met Arg Gln Glu Ala Leu Met	
1925 1930 1935	
aag act gac cgg cgc aga cgg cgg cct cga gag gaa gtg aga gct	6342
Lys Thr Asp Arg Arg Arg Arg Pro Arg Glu Glu Val Arg Ala	
1940 1945 1950	
ctg gaa gcg gaa agg gaa gct att ata tct gag aag cgg caa aag	6387
Leu Glu Ala Glu Arg Glu Ala Ile Ile Ser Glu Lys Arg Gln Lys	
1955 1960 1965	
tgg aca aga aga gaa gag gct gat ttt tac cgt gtg gta tcc acc	6432
Trp Thr Arg Arg Glu Glu Ala Asp Phe Tyr Arg Val Val Ser Thr	
1970 1975 1980	
ttt ggg gtt att ttt gac cct gtg aaa cag caa ttt gac tgg aac	6477
Phe Gly Val Ile Phe Asp Pro Val Lys Gln Gln Phe Asp Trp Asn	
1985 1990 1995	
caa ttt aga gcc ttt gcc agg ctt gac aaa aaa tct gat gag agt	6522
Gln Phe Arg Ala Phe Ala Arg Leu Asp Lys Lys Ser Asp Glu Ser	
2000 2005 2010	
ttg gag aaa tac ttc agt tgt ttt gtg gcc atg tgt agg cga gta	6567
Leu Glu Lys Tyr Phe Ser Cys Phe Val Ala Met Cys Arg Arg Val	
2015 2020 2025	
tgt cga atg ccc gtc aag cca gat gat gaa ccg ccc gac ctc tcc	6612
Cys Arg Met Pro Val Lys Pro Asp Asp Glu Pro Pro Asp Leu Ser	
2030 2035 2040	
tcc ata att gag ccg atc aca gag gag cga gcc tct cga act ctg	6657
Ser Ile Ile Glu Pro Ile Thr Glu Glu Arg Ala Ser Arg Thr Leu	
2045 2050 2055	
tac cgc att gag ctg cta cgg aag atc cgc gag cag gtt ctc cat	6702
Tyr Arg Ile Glu Leu Leu Arg Lys Ile Arg Glu Gln Val Leu His	

2060					2065					2070					
cac	ccc	cag	ctg	gga	gag	agg	ctt	aag	ctc	tgc	cag	cca	agc	ttg	6747
His	Pro	Gln	Leu	Gly	Glu	Arg	Leu	Lys	Leu	Cys	Gln	Pro	Ser	Leu	
				2075					2080					2085	
gat	ctg	cca	gag	tgg	tgg	gag	tgt	gga	cgg	cat	gac	cga	gac	ttg	6792
Asp	Leu	Pro	Glu	Trp	Trp	Glu	Cys	Gly	Arg	His	Asp	Arg	Asp	Leu	
				2090					2095					2100	
ctg	gtt	ggt	gct	gct	aaa	cac	ggg	gtc	agt	cgg	acg	gat	tat	cac	6837
Leu	Val	Gly	Ala	Ala	Lys	His	Gly	Val	Ser	Arg	Thr	Asp	Tyr	His	
				2105					2110					2115	
atc	ctc	aat	gac	cct	gag	tta	tcc	ttc	ttg	gat	gca	cat	aaa	aac	6882
Ile	Leu	Asn	Asp	Pro	Glu	Leu	Ser	Phe	Leu	Asp	Ala	His	Lys	Asn	
				2120					2125					2130	
ttt	gct	caa	aac	aga	ggg	gca	ggt	aat	aca	tct	tcc	ttg	aac	cca	6927
Phe	Ala	Gln	Asn	Arg	Gly	Ala	Gly	Asn	Thr	Ser	Ser	Leu	Asn	Pro	
				2135					2140					2145	
ctg	gca	gtt	gga	ttt	gtc	cag	act	cct	cca	gtc	atc	tca	tct	gct	6972
Leu	Ala	Val	Gly	Phe	Val	Gln	Thr	Pro	Pro	Val	Ile	Ser	Ser	Ala	
				2150					2155					2160	
cat	att	caa	gat	gag	agg	gta	ctg	gaa	caa	gcc	gaa	ggc	aaa	gtg	7017
His	Ile	Gln	Asp	Glu	Arg	Val	Leu	Glu	Gln	Ala	Glu	Gly	Lys	Val	
				2165					2170					2175	
gag	gag	cct	gaa	aac	cca	gct	gcc	aag	gag	aaa	tgt	gag	ggc	aaa	7062
Glu	Glu	Pro	Glu	Asn	Pro	Ala	Ala	Lys	Glu	Lys	Cys	Glu	Gly	Lys	
				2180					2185					2190	
gaa	gag	gaa	gaa	gaa	acc	gat	ggc	agc	ggg	aag	gag	agc	aag	cag	7107
Glu	Glu	Glu	Glu	Glu	Thr	Asp	Gly	Ser	Gly	Lys	Glu	Ser	Lys	Gln	
				2195					2200					2205	
gaa	tgt	gag	gca	gag	gcc	agc	tct	gtg	aaa	aat	gaa	ctg	aaa	ggt	7152
Glu	Cys	Glu	Ala	Glu	Ala	Ser	Ser	Val	Lys	Asn	Glu	Leu	Lys	Gly	
				2210					2215					2220	
gtt	gag	gtc	ggc	gca	gac	act	ggg	tcc	aaa	tct	att	tca	gag	aaa	7197
Val	Glu	Val	Gly	Ala	Asp	Thr	Gly	Ser	Lys	Ser	Ile	Ser	Glu	Lys	
				2225					2230					2235	
ggt	tcc	gaa	gag	gat	gaa	gag	gaa	aag	ctg	gag	gat	gac	gat	aag	7242
Gly	Ser	Glu	Glu	Asp	Glu	Glu	Glu	Lys	Leu	Glu	Asp	Asp	Asp	Lys	
				2240					2245					2250	
tgc	gaa	gag	tct	tcc	cag	ccc	gaa	gca	gga	gct	gtc	tct	aga	ggg	7287
Ser	Glu	Glu	Ser	Ser	Gln	Pro	Glu	Ala	Gly	Ala	Val	Ser	Arg	Gly	
				2255					2260					2265	
aag	aat	ttt	gat	gaa	gaa	agc	aat	gct	tcc	atg	agc	act	gct	aga	7332
Lys	Asn	Phe	Asp	Glu	Glu	Ser	Asn	Ala	Ser	Met	Ser	Thr	Ala	Arg	
				2270					2275					2280	

gat gaa acc cga gat gga ttc tac atg gag gac gga gat cct tca	7377
Asp Glu Thr Arg Asp Gly Phe Tyr Met Glu Asp Gly Asp Pro Ser	
2285 2290 2295	
gta gct cag ctc ctt cat gaa aga aca ttt gcc ttc tcg ttt tgg	7422
Val Ala Gln Leu Leu His Glu Arg Thr Phe Ala Phe Ser Phe Trp	
2300 2305 2310	
cct aag gat aga gta atg ata aac cgc tta gac aac atc tgt gaa	7467
Pro Lys Asp Arg Val Met Ile Asn Arg Leu Asp Asn Ile Cys Glu	
2315 2320 2325	
gca gtg ttg aaa ggc aaa tgg cca gta aat agg cgc cag atg ttt	7512
Ala Val Leu Lys Gly Lys Trp Pro Val Asn Arg Arg Gln Met Phe	
2330 2335 2340	
gat ttc caa ggc ctc atc cca ggt tac aca ccc acc aca gtg gac	7557
Asp Phe Gln Gly Leu Ile Pro Gly Tyr Thr Pro Thr Thr Val Asp	
2345 2350 2355	
agc ccc ttg cag aag agg agc ttt gct gag ctc tcc atg gtc ggc	7602
Ser Pro Leu Gln Lys Arg Ser Phe Ala Glu Leu Ser Met Val Gly	
2360 2365 2370	
caa gcc agc att agt ggg agt gag gac atc act acg tct cct cag	7647
Gln Ala Ser Ile Ser Gly Ser Glu Asp Ile Thr Thr Ser Pro Gln	
2375 2380 2385	
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Leu Ser Lys Glu Asp Ala Leu Asn Leu Ser Val Pro Arg Gln Arg	
2390 2395 2400	
agg agg agg agg aga aaa atc gaa att gag gcc gaa aga gct gcc	7737
Arg Arg Arg Arg Arg Lys Ile Glu Ile Glu Ala Glu Arg Ala Ala	
2405 2410 2415	
aag agg cga aat ctc atg gag atg gtt gcc cag ctt cga gag tct	7782
Lys Arg Arg Asn Leu Met Glu Met Val Ala Gln Leu Arg Glu Ser	
2420 2425 2430	
cag gtg gtc tca gaa aat gga caa gaa aaa gtt gta gat tta tca	7827
Gln Val Val Ser Glu Asn Gly Gln Glu Lys Val Val Asp Leu Ser	
2435 2440 2445	
aag gcc tca aga gag gca aca agc tct acc tca aat ttt tca tct	7872
Lys Ala Ser Arg Glu Ala Thr Ser Ser Thr Ser Asn Phe Ser Ser	
2450 2455 2460	
ctt tct tca aag ttt atc ttg cct aat gtc tca aca cca gtg tct	7917
Leu Ser Ser Lys Phe Ile Leu Pro Asn Val Ser Thr Pro Val Ser	
2465 2470 2475	
gat gcc ttt aag act caa atg gaa ctg ctc caa gca ggc ctt tcg	7962
Asp Ala Phe Lys Thr Gln Met Glu Leu Leu Gln Ala Gly Leu Ser	
2480 2485 2490	
cgc aca ccc aca agg cat ctc ctt aat ggc tcc cta gtg gat gga	8007
Arg Thr Pro Thr Arg His Leu Leu Asn Gly Ser Leu Val Asp Gly	

2495				2500				2505								
gag	cct	ccc	atg	aag	agg	agg	cgg	gga	agg	agg	aaa	aat	gtg	gag		8052
Glu	Pro	Pro	Met	Lys	Arg	Arg	Arg	Gly	Arg	Arg	Lys	Asn	Val	Glu		
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gga	ctt	gat	ctg	ctt	ttc	atg	agc	cac	aaa	cgg	acg	tca	ttg	agt		8097
Gly	Leu	Asp	Leu	Leu	Phe	Met	Ser	His	Lys	Arg	Thr	Ser	Leu	Ser		
				2525					2530					2535		
gca	gag	gat	gct	gag	gtg	acc	aaa	gct	ttt	gaa	gaa	gat	ata	gag		8142
Ala	Glu	Asp	Ala	Glu	Val	Thr	Lys	Ala	Phe	Glu	Glu	Asp	Ile	Glu		
				2540					2545					2550		
acc	cca	cca	aca	aga	aac	att	cct	tct	ccc	gga	cag	ctg	gac	cca		8187
Thr	Pro	Pro	Thr	Arg	Asn	Ile	Pro	Ser	Pro	Gly	Gln	Leu	Asp	Pro		
				2555					2560					2565		
gac	aca	cgg	atc	cct	gtt	atc	aat	ctt	gaa	gat	ggg	act	agg	ctg		8232
Asp	Thr	Arg	Ile	Pro	Val	Ile	Asn	Leu	Glu	Asp	Gly	Thr	Arg	Leu		
				2570					2575					2580		
gtg	ggg	gaa	gat	gct	cct	aaa	aat	aag	gat	tta	gtt	gaa	tgg	ctg		8277
Val	Gly	Glu	Asp	Ala	Pro	Lys	Asn	Lys	Asp	Leu	Val	Glu	Trp	Leu		
				2585					2590					2595		
aag	ctg	cac	cct	act	tac	act	gtt	gat	atg	cca	agt	tat	gta	cca		8322
Lys	Leu	His	Pro	Thr	Tyr	Thr	Val	Asp	Met	Pro	Ser	Tyr	Val	Pro		
				2600					2605					2610		
aag	aat	gca	gat	gtg	ctg	ttt	tcc	tca	ttt	cag	aaa	ccg	aaa	cag		8367
Lys	Asn	Ala	Asp	Val	Leu	Phe	Ser	Ser	Phe	Gln	Lys	Pro	Lys	Gln		
				2615					2620					2625		
aaa	cga	cat	aga	tgt	cga	aac	cct	aat	aaa	ttg	gat	ata	aac	act		8412
Lys	Arg	His	Arg	Cys	Arg	Asn	Pro	Asn	Lys	Leu	Asp	Ile	Asn	Thr		
				2630					2635					2640		
ttg	aca	gga	gaa	gaa	agg	gtg	cct	gtt	gtc	aat	aaa	cga	aat	ggg		8457
Leu	Thr	Gly	Glu	Glu	Arg	Val	Pro	Val	Val	Asn	Lys	Arg	Asn	Gly		
				2645					2650					2655		
aag	aag	atg	ggt	gga	gct	atg	gcg	cct	cca	atg	aag	gat	cta	ccc		8502
Lys	Lys	Met	Gly	Gly	Ala	Met	Ala	Pro	Pro	Met	Lys	Asp	Leu	Pro		
				2660					2665					2670		
agg	tgg	ctg	gaa	gaa	aat	cct	gaa	ttt	gca	gtt	gct	cca	gac	tgg		8547
Arg	Trp	Leu	Glu	Glu	Asn	Pro	Glu	Phe	Ala	Val	Ala	Pro	Asp	Trp		
				2675					2680					2685		
act	gat	ata	gtt	aag	cag	tct	ggt	ttt	gtt	cct	gag	tcg	atg	ttt		8592
Thr	Asp	Ile	Val	Lys	Gln	Ser	Gly	Phe	Val	Pro	Glu	Ser	Met	Phe		
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gac	cgc	ctt	ctc	act	ggg	cct	gta	gtg	cgg	gga	gag	gga	gcg	agc		8637
Asp	Arg	Leu	Leu	Thr	Gly	Pro	Val	Val	Arg	Gly	Glu	Gly	Ala	Ser		
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aga	aga	gga	aga	agg	ccc	aaa	agt	gag	atc	gcc	aga	gca	gcc	gcg	8682
Arg	Arg	Gly	Arg	Arg	Pro	Lys	Ser	Glu	Ile	Ala	Arg	Ala	Ala	Ala	
				2720					2725					2730	
gcc	gcc	gct	gct	gtg	gcc	tcc	acg	tca	ggg	atc	aac	cct	ttg	ctg	8727
Ala	Ala	Ala	Ala	Val	Ala	Ser	Thr	Ser	Gly	Ile	Asn	Pro	Leu	Leu	
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gtg	aac	agc	ctg	ttt	gct	gga	atg	gac	ctg	acg	agc	ctt	cag	aat	8772
Val	Asn	Ser	Leu	Phe	Ala	Gly	Met	Asp	Leu	Thr	Ser	Leu	Gln	Asn	
				2750					2755					2760	
ctc	cag	aat	ctc	cag	tcg	ctc	cag	ctg	gca	ggc	ctc	atg	ggc	ttc	8817
Leu	Gln	Asn	Leu	Gln	Ser	Leu	Gln	Leu	Ala	Gly	Leu	Met	Gly	Phe	
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cct	cca	gga	ctg	gca	aca	gct	gcc	acc	gcc	gga	ggc	gat	gcg	aag	8862
Pro	Pro	Gly	Leu	Ala	Thr	Ala	Ala	Thr	Ala	Gly	Gly	Asp	Ala	Lys	
				2780					2785					2790	
aac	cct	gct	gct	gtg	ctg	ccc	ctg	atg	ctg	cca	gga	atg	gcg	ggc	8907
Asn	Pro	Ala	Ala	Val	Leu	Pro	Leu	Met	Leu	Pro	Gly	Met	Ala	Gly	
				2795					2800					2805	
ctg	ccc	aac	gtg	ttt	ggc	ttg	ggc	ggg	ctg	ttg	aat	aac	cct	ctg	8952
Leu	Pro	Asn	Val	Phe	Gly	Leu	Gly	Gly	Leu	Leu	Asn	Asn	Pro	Leu	
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tca	gct	gct	act	gga	aac	acc	act	act	gct	tct	agt	caa	gga	gaa	8997
Ser	Ala	Ala	Thr	Gly	Asn	Thr	Thr	Thr	Ala	Ser	Ser	Gln	Gly	Glu	
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cgc	gaa	gac	agc	act	tca	aaa	gga	gag	gag	aaa	gga	aat	gag	aat	9042
Pro	Glu	Asp	Ser	Thr	Ser	Lys	Gly	Glu	Glu	Lys	Gly	Asn	Glu	Asn	
				2840					2845					2850	
gaa	gac	gag	aac	aaa	gac	tct	gag	aaa	agc	aca	gat	gct	gtt	tgc	9087
Glu	Asp	Glu	Asn	Lys	Asp	Ser	Glu	Lys	Ser	Thr	Asp	Ala	Val	Ser	
				2855					2860					2865	
gct	gct	gac	tct	gcg	aat	gga	tct	gtt	ggt	gct	gct	act	gcc	cgc	9132
Ala	Ala	Asp	Ser	Ala	Asn	Gly	Ser	Val	Gly	Ala	Ala	Thr	Ala	Pro	
				2870					2875					2880	
gct	gga	ttg	ccc	tca	aac	ccg	cta	gcc	ttc	aac	cct	ttc	ctc	ctg	9177
Ala	Gly	Leu	Pro	Ser	Asn	Pro	Leu	Ala	Phe	Asn	Pro	Phe	Leu	Leu	
				2885					2890					2895	
tcc	aca	atg	gcc	ccg	ggc	ctc	ttc	tac	cca	tcc	atg	ttt	cta	cct	9222
Ser	Thr	Met	Ala	Pro	Gly	Leu	Phe	Tyr	Pro	Ser	Met	Phe	Leu	Pro	
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cca	gga	ctg	ggg	gga	ttg	acg	ctg	cct	ggg	ttc	cca	gca	ttg	gca	9267
Pro	Gly	Leu	Gly	Gly	Leu	Thr	Leu	Pro	Gly	Phe	Pro	Ala	Leu	Ala	
				2915					2920					2925	
gga	ctt	cag	aat	gcc	gtg	ggc	tcc	agc	gaa	gaa	aag	gct	gct	gac	9312
Gly	Leu	Gln	Asn	Ala	Val	Gly	Ser	Ser	Glu	Glu	Lys	Ala	Ala	Asp	

2930	2935	2940	
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agc gat gcc gag gag agc ctg gat aag act gca gag tcc tcc ctc Ser Asp Ala Glu Glu Ser Leu Asp Lys Thr Ala Glu Ser Ser Leu 2960 2965 2970			9402
tta gaa gac gaa ata gca cag ggt gaa gag cta gac tca ctt gat Leu Glu Asp Glu Ile Ala Gln Gly Glu Glu Leu Asp Ser Leu Asp 2975 2980 2985			9447
ggg ggg gat gaa ata gaa aac aat gaa aat gat gaa taa ccagtaccag Gly Gly Asp Glu Ile Glu Asn Asn Glu Asn Asp Glu 2990 2995			9496
ttccagttca agtgttttaa acttttgaca agtggtagtc ctactgttta cactcacagt			9556
taatgttcat acctagtttt ataagctgtt ctgtaacata gtgtagcaaa aaaaaagtt			9616
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gaaagtcct tgaagagaat attttttgaa agggaattat ttgaacacgg gaaagtgaaa	11476
ctaggtctgc atgaagtata ggaaatttaa gtatttaagt aacaaagatg ttagcaggga	11536
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 <211> 2997
 <212> PRT
 <213> Homo sapiens

<400> 2

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Phe	Ser	Glu	Gly	Leu	Glu	Gly	Leu	Gly	Glu	Cys	Gly	Tyr	Pro	Glu	Asn
			20					25					30		

Pro	Val	Asn	Pro	Met	Gly	Gln	Gln	Met	Pro	Ile	Asp	Gln	Gly	Phe	Ala
		35					40					45			

Ser	Leu	Gln	Pro	Ser	Leu	His	His	Pro	Ser	Thr	Asn	Gln	Asn	Gln	Thr
	50					55					60				

Lys	Leu	Thr	His	Phe	Asp	His	Tyr	Asn	Gln	Tyr	Glu	Gln	Gln	Lys	Met
65					70					75					80

His Leu Met Asp Gln Pro Asn Arg Met Met Ser Asn Thr Pro Gly Asn
85 90 95

Gly Leu Ala Ser Pro His Ser Gln Tyr His Thr Pro Pro Val Pro Gln
100 105 110

Val Pro His Gly Gly Ser Gly Gly Gly Gln Met Gly Val Tyr Pro Gly
115 120 125

Met Gln Asn Glu Arg His Gly Gln Ser Phe Val Asp Ser Ser Ser Met
130 135 140

Trp Gly Pro Arg Ala Val Gln Val Pro Asp Gln Ile Arg Ala Pro Tyr
145 150 155 160

Gln Gln Gln Gln Pro Gln Pro Gln Pro Pro Gln Pro Ala Pro Ser Gly
165 170 175

Pro Pro Ala Gln Gly His Pro Gln His Met Gln Gln Met Gly Ser Tyr
180 185 190

Met Ala Arg Gly Asp Phe Ser Met Gln Gln His Gly Gln Pro Gln Gln
195 200 205

Arg Met Ser Gln Phe Ser Gln Gly Gln Glu Gly Leu Asn Gln Gly Asn
210 215 220

Pro Phe Ile Ala Thr Ser Gly Pro Gly His Leu Ser His Val Pro Gln
225 230 235 240

Gln Ser Pro Ser Met Ala Pro Ser Leu Arg His Ser Val Gln Gln Phe
245 250 255

His His His Pro Ser Thr Ala Leu His Gly Glu Ser Val Ala His Ser
260 265 270

Pro Arg Phe Ser Pro Asn Pro Pro Gln Gln Gly Ala Val Arg Pro Gln
275 280 285

Thr Leu Asn Phe Ser Ser Arg Ser Gln Thr Val Pro Ser Pro Thr Ile
290 295 300

Asn Asn Ser Gly Gln Tyr Ser Arg Tyr Pro Tyr Ser Asn Leu Asn Gln
305 310 315 320

Gly Leu Val Asn Asn Thr Gly Met Asn Gln Asn Leu Gly Leu Thr Asn
 325 330 335

Asn Thr Pro Met Asn Gln Ser Val Pro Arg Tyr Pro Asn Ala Val Gly
 340 345 350

Phe Pro Ser Asn Ser Gly Gln Gly Leu Met His Gln Gln Pro Ile His
 355 360 365

Pro Ser Gly Ser Leu Asn Gln Met Asn Thr Gln Thr Met His Pro Ser
 370 375 380

Gln Pro Gln Gly Thr Tyr Ala Ser Pro Pro Pro Met Ser Pro Met Lys
 385 390 395 400

Ala Met Ser Asn Pro Ala Gly Thr Pro Pro Pro Gln Val Arg Pro Gly
 405 410 415

Ser Ala Gly Ile Pro Met Glu Val Gly Ser Tyr Pro Asn Met Pro His
 420 425 430

Pro Gln Pro Ser His Gln Pro Pro Gly Ala Met Gly Ile Gly Gln Arg
 435 440 445

Asn Met Gly Pro Arg Asn Met Gln Gln Ser Arg Pro Phe Ile Gly Met
 450 455 460

Ser Ser Ala Pro Arg Glu Leu Thr Gly His Met Arg Pro Asn Gly Cys
 465 470 475 480

Pro Gly Val Gly Leu Gly Asp Pro Gln Ala Ile Gln Glu Arg Leu Ile
 485 490 495

Pro Gly Gln Gln His Pro Gly Gln Gln Pro Ser Phe Gln Gln Leu Pro
 500 505 510

Thr Cys Pro Pro Leu Gln Pro His Pro Gly Leu His His Gln Ser Ser
 515 520 525

Pro Pro His Pro His His Gln Pro Trp Ala Gln Leu His Pro Ser Pro
 530 535 540

Gln Asn Thr Pro Gln Lys Val Pro Val His Gln His Ser Pro Ser Glu
545 550 555 560

Pro Phe Leu Glu Lys Pro Val Pro Asp Met Thr Gln Val Ser Gly Pro
565 570 575

Asn Ala Gln Leu Val Lys Ser Asp Asp Tyr Leu Pro Ser Ile Glu Gln
580 585 590

Gln Pro Gln Gln Lys Lys Lys Lys Lys Lys Asn Asn His Ile Val Ala
595 600 605

Glu Asp Pro Ser Lys Gly Phe Gly Lys Asp Asp Phe Pro Gly Gly Val
610 615 620

Asp Asn Gln Glu Leu Asn Arg Asn Ser Leu Asp Gly Ser Gln Glu Glu
625 630 635 640

Lys Lys Lys Lys Lys Arg Ser Lys Ala Lys Lys Asp Pro Lys Glu Pro
645 650 655

Lys Glu Pro Lys Glu Lys Lys Glu Pro Lys Glu Pro Lys Thr Pro Lys
660 665 670

Ala Pro Lys Ile Pro Lys Glu Pro Lys Glu Lys Lys Ala Lys Thr Ala
675 680 685

Thr Pro Lys Pro Lys Ser Ser Lys Lys Ser Ser Asn Lys Lys Pro Asp
690 695 700

Ser Glu Ala Ser Ala Leu Lys Lys Lys Val Asn Lys Gly Lys Thr Glu
705 710 715 720

Gly Ser Glu Asn Ser Asp Leu Asp Lys Thr Pro Pro Pro Ser Pro Pro
725 730 735

Pro Glu Glu Asp Glu Asp Pro Gly Val Gln Lys Arg Arg Ser Ser Arg
740 745 750

Gln Val Lys Arg Lys Arg Tyr Thr Glu Asp Leu Glu Phe Lys Ile Ser
755 760 765

Asp Glu Glu Ala Asp Asp Ala Asp Ala Ala Gly Arg Asp Ser Pro Ser
770 775 780

Asn Thr Ser Gln Ser Glu Gln Gln Glu Ser Val Asp Ala Glu Gly Pro
785 790 795 800

Val Val Glu Lys Ile Met Ser Ser Arg Ser Val Lys Lys Gln Lys Glu
805 810 815

Ser Gly Glu Glu Val Glu Ile Glu Glu Phe Tyr Val Lys Tyr Lys Asn
820 825 830

Phe Ser Tyr Leu His Cys Gln Trp Ala Ser Ile Glu Asp Leu Glu Lys
835 840 845

Asp Lys Arg Ile Gln Gln Lys Ile Lys Arg Phe Lys Ala Lys Gln Gly
850 855 860

Gln Asn Lys Phe Leu Ser Glu Ile Glu Asp Glu Leu Phe Asn Pro Asp
865 870 875 880

Tyr Val Glu Val Asp Arg Ile Met Asp Phe Ala Arg Ser Thr Asp Asp
885 890 895

Arg Gly Glu Pro Val Thr His Tyr Leu Val Lys Trp Cys Ser Leu Pro
900 905 910

Tyr Glu Asp Ser Thr Trp Glu Arg Arg Gln Asp Ile Asp Gln Ala Lys
915 920 925

Ile Glu Glu Phe Glu Lys Leu Met Ser Arg Glu Pro Glu Thr Glu Arg
930 935 940

Val Glu Arg Pro Pro Ala Asp Asp Trp Lys Lys Ser Glu Ser Ser Arg
945 950 955 960

Glu Tyr Lys Asn Asn Asn Lys Leu Arg Glu Tyr Gln Leu Glu Gly Val
965 970 975

Asn Trp Leu Leu Phe Asn Trp Tyr Asn Met Arg Asn Cys Ile Leu Ala
980 985 990

Asp Glu Met Gly Leu Gly Lys Thr Ile Gln Ser Ile Thr Phe Leu Tyr
995 1000 1005

Glu	Ile	Tyr	Leu	Lys	Gly	Ile	His	Gly	Pro	Phe	Leu	Val	Ile	Ala
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Pro	Leu	Ser	Thr	Ile	Pro	Asn	Trp	Glu	Arg	Glu	Phe	Arg	Thr	Trp
1025						1030					1035			
Thr	Glu	Leu	Asn	Val	Val	Val	Tyr	His	Gly	Ser	Gln	Ala	Ser	Arg
1040						1045					1050			
Arg	Thr	Ile	Gln	Leu	Tyr	Glu	Met	Tyr	Phe	Lys	Asp	Pro	Gln	Gly
1055						1060					1065			
Arg	Val	Ile	Lys	Gly	Ser	Tyr	Lys	Phe	His	Ala	Ile	Ile	Thr	Thr
1070						1075					1080			
Phe	Glu	Met	Ile	Leu	Thr	Asp	Cys	Pro	Glu	Leu	Arg	Asn	Ile	Pro
1085						1090					1095			
Trp	Arg	Cys	Val	Val	Ile	Asp	Glu	Ala	His	Arg	Leu	Lys	Asn	Arg
1100						1105					1110			
Asn	Cys	Lys	Leu	Leu	Glu	Gly	Leu	Lys	Met	Met	Asp	Leu	Glu	His
1115						1120					1125			
Lys	Val	Leu	Leu	Thr	Gly	Thr	Pro	Leu	Gln	Asn	Thr	Val	Glu	Glu
1130						1135					1140			
Leu	Phe	Ser	Leu	Leu	His	Phe	Leu	Glu	Pro	Ser	Arg	Phe	Pro	Ser
1145						1150					1155			
Glu	Thr	Thr	Phe	Met	Gln	Glu	Phe	Gly	Asp	Leu	Lys	Thr	Glu	Glu
1160						1165					1170			
Gln	Val	Gln	Lys	Leu	Gln	Ala	Ile	Leu	Lys	Pro	Met	Met	Leu	Arg
1175						1180					1185			
Arg	Leu	Lys	Glu	Asp	Val	Glu	Lys	Asn	Leu	Ala	Pro	Lys	Glu	Glu
1190						1195					1200			
Thr	Ile	Ile	Glu	Val	Glu	Leu	Thr	Asn	Ile	Gln	Lys	Lys	Tyr	Tyr
1205						1210					1215			
Arg	Ala	Ile	Leu	Glu	Lys	Asn	Phe	Thr	Phe	Leu	Ser	Lys	Gly	Gly
1220						1225					1230			

Gly	Gln	Ala	Asn	Val	Pro	Asn	Leu	Leu	Asn	Thr	Met	Met	Glu	Leu
	1235					1240					1245			
Arg	Lys	Cys	Cys	Asn	His	Pro	Tyr	Leu	Ile	Asn	Gly	Ala	Glu	Glu
	1250					1255					1260			
Lys	Ile	Leu	Glu	Glu	Phe	Lys	Glu	Thr	His	Asn	Ala	Glu	Ser	Pro
	1265					1270					1275			
Asp	Phe	Gln	Leu	Gln	Ala	Met	Ile	Gln	Ala	Ala	Gly	Lys	Leu	Val
	1280					1285					1290			
Leu	Ile	Asp	Lys	Leu	Leu	Pro	Lys	Leu	Lys	Ala	Gly	Gly	His	Arg
	1295					1300					1305			
Val	Leu	Ile	Phe	Ser	Gln	Met	Val	Arg	Cys	Leu	Asp	Ile	Leu	Glu
	1310					1315					1320			
Asp	Tyr	Leu	Ile	Gln	Arg	Arg	Tyr	Pro	Tyr	Glu	Arg	Ile	Asp	Gly
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Arg	Val	Arg	Gly	Asn	Leu	Arg	Gln	Ala	Ala	Ile	Asp	Arg	Phe	Ser
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Lys	Pro	Asp	Ser	Asp	Arg	Phe	Val	Phe	Leu	Leu	Cys	Thr	Arg	Ala
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Gly	Gly	Leu	Gly	Ile	Asn	Leu	Thr	Ala	Ala	Asp	Thr	Cys	Ile	Ile
	1370					1375					1380			
Phe	Asp	Ser	Asp	Trp	Asn	Pro	Gln	Asn	Asp	Leu	Gln	Ala	Gln	Ala
	1385					1390					1395			
Arg	Cys	His	Arg	Ile	Gly	Gln	Ser	Lys	Ser	Val	Lys	Ile	Tyr	Arg
	1400					1405					1410			
Leu	Ile	Thr	Arg	Asn	Ser	Tyr	Glu	Arg	Glu	Met	Phe	Asp	Lys	Ala
	1415					1420					1425			
Ser	Leu	Lys	Leu	Gly	Leu	Asp	Lys	Ala	Val	Leu	Gln	Ser	Met	Ser
	1430					1435					1440			

Gly	Arg	Glu	Asn	Ala	Thr	Asn	Gly	Val	Gln	Gln	Leu	Ser	Lys	Lys
	1445					1450					1455			
Glu	Ile	Glu	Asp	Leu	Leu	Arg	Lys	Gly	Ala	Tyr	Gly	Ala	Leu	Met
	1460					1465					1470			
Asp	Glu	Glu	Asp	Glu	Gly	Ser	Lys	Phe	Cys	Glu	Glu	Asp	Ile	Asp
	1475					1480					1485			
Gln	Ile	Leu	Leu	Arg	Arg	Thr	His	Thr	Ile	Thr	Ile	Glu	Ser	Glu
	1490					1495					1500			
Gly	Lys	Gly	Ser	Thr	Phe	Ala	Lys	Ala	Ser	Phe	Val	Ala	Ser	Gly
	1505					1510					1515			
Asn	Arg	Thr	Asp	Ile	Ser	Leu	Asp	Asp	Pro	Asn	Phe	Trp	Gln	Lys
	1520					1525					1530			
Trp	Ala	Lys	Lys	Ala	Glu	Leu	Asp	Ile	Asp	Ala	Leu	Asn	Gly	Arg
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Leu	Tyr	Ser	Ala	Val	Lys	Glu	Asp	Glu	Leu	Met	Glu	Phe	Ser	Asp
	1565					1570					1575			
Leu	Glu	Ser	Asp	Ser	Glu	Glu	Lys	Pro	Cys	Ala	Lys	Pro	Arg	Arg
	1580					1585					1590			
Pro	Gln	Asp	Lys	Ser	Gln	Gly	Tyr	Ala	Arg	Ser	Glu	Cys	Phe	Arg
	1595					1600					1605			
Val	Glu	Lys	Asn	Leu	Leu	Val	Tyr	Gly	Trp	Gly	Arg	Trp	Thr	Asp
	1610					1615					1620			
Ile	Leu	Ser	His	Gly	Arg	Tyr	Lys	Arg	Gln	Leu	Thr	Glu	Gln	Asp
	1625					1630					1635			
Val	Glu	Thr	Ile	Cys	Arg	Thr	Ile	Leu	Val	Tyr	Cys	Leu	Asn	His
	1640					1645					1650			
Tyr	Lys	Gly	Asp	Glu	Asn	Ile	Lys	Ser	Phe	Ile	Trp	Asp	Leu	Ile
	1655					1660					1665			

Thr	Pro	Thr	Ala	Asp	Gly	Gln	Thr	Arg	Ala	Leu	Val	Asn	His	Ser
	1670					1675					1680			
Gly	Leu	Ser	Ala	Pro	Val	Pro	Arg	Gly	Arg	Lys	Gly	Lys	Lys	Val
	1685					1690					1695			
Lys	Ala	Gln	Ser	Thr	Gln	Pro	Val	Val	Gln	Asp	Ala	Asp	Trp	Leu
	1700					1705					1710			
Ala	Ser	Cys	Asn	Pro	Asp	Ala	Leu	Phe	Gln	Glu	Asp	Ser	Tyr	Lys
	1715					1720					1725			
Lys	His	Leu	Lys	His	His	Cys	Asn	Lys	Val	Leu	Leu	Arg	Val	Arg
	1730					1735					1740			
Met	Leu	Tyr	Tyr	Leu	Arg	Gln	Glu	Val	Ile	Gly	Asp	Gln	Ala	Asp
	1745					1750					1755			
Lys	Ile	Leu	Glu	Gly	Ala	Asp	Ser	Ser	Glu	Ala	Asp	Val	Trp	Ile
	1760					1765					1770			
Pro	Glu	Pro	Phe	His	Ala	Glu	Val	Pro	Ala	Asp	Trp	Trp	Asp	Lys
	1775					1780					1785			
Glu	Ala	Asp	Lys	Ser	Leu	Leu	Ile	Gly	Val	Phe	Lys	His	Gly	Tyr
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Glu	Lys	Tyr	Asn	Ser	Met	Arg	Ala	Asp	Pro	Ala	Leu	Cys	Phe	Leu
	1805					1810					1815			
Glu	Arg	Val	Gly	Met	Pro	Asp	Ala	Lys	Ala	Ile	Ala	Ala	Glu	Gln
	1820					1825					1830			
Arg	Gly	Thr	Asp	Met	Leu	Ala	Asp	Gly	Gly	Asp	Gly	Gly	Glu	Phe
	1835					1840					1845			
Asp	Arg	Glu	Asp	Glu	Asp	Pro	Glu	Tyr	Lys	Pro	Thr	Arg	Thr	Pro
	1850					1855					1860			
Phe	Lys	Asp	Glu	Ile	Asp	Glu	Phe	Ala	Asn	Ser	Pro	Ser	Glu	Asp
	1865					1870					1875			

Lys Glu Glu Ser Met Glu Ile His Ala Thr Gly Lys His Ser Glu
 1880 1885 1890
 Ser Asn Ala Glu Leu Gly Gln Leu Tyr Trp Pro Asn Thr Ser Thr
 1895 1900 1905
 Leu Thr Thr Arg Leu Arg Arg Leu Ile Thr Ala Tyr Gln Arg Ser
 1910 1915 1920
 Tyr Lys Arg Gln Gln Met Arg Gln Glu Ala Leu Met Lys Thr Asp
 1925 1930 1935
 Arg Arg Arg Arg Arg Pro Arg Glu Glu Val Arg Ala Leu Glu Ala
 1940 1945 1950
 Glu Arg Glu Ala Ile Ile Ser Glu Lys Arg Gln Lys Trp Thr Arg
 1955 1960 1965
 Arg Glu Glu Ala Asp Phe Tyr Arg Val Val Ser Thr Phe Gly Val
 1970 1975 1980
 Ile Phe Asp Pro Val Lys Gln Gln Phe Asp Trp Asn Gln Phe Arg
 1985 1990 1995
 Ala Phe Ala Arg Leu Asp Lys Lys Ser Asp Glu Ser Leu Glu Lys
 2000 2005 2010
 Tyr Phe Ser Cys Phe Val Ala Met Cys Arg Arg Val Cys Arg Met
 2015 2020 2025
 Pro Val Lys Pro Asp Asp Glu Pro Pro Asp Leu Ser Ser Ile Ile
 2030 2035 2040
 Glu Pro Ile Thr Glu Glu Arg Ala Ser Arg Thr Leu Tyr Arg Ile
 2045 2050 2055
 Glu Leu Leu Arg Lys Ile Arg Glu Gln Val Leu His His Pro Gln
 2060 2065 2070
 Leu Gly Glu Arg Leu Lys Leu Cys Gln Pro Ser Leu Asp Leu Pro
 2075 2080 2085
 Glu Trp Trp Glu Cys Gly Arg His Asp Arg Asp Leu Leu Val Gly
 2090 2095 2100

Ala	Ala	Lys	His	Gly	Val	Ser	Arg	Thr	Asp	Tyr	His	Ile	Leu	Asn
	2105					2110					2115			
Asp	Pro	Glu	Leu	Ser	Phe	Leu	Asp	Ala	His	Lys	Asn	Phe	Ala	Gln
	2120					2125					2130			
Asn	Arg	Gly	Ala	Gly	Asn	Thr	Ser	Ser	Leu	Asn	Pro	Leu	Ala	Val
	2135					2140					2145			
Gly	Phe	Val	Gln	Thr	Pro	Pro	Val	Ile	Ser	Ser	Ala	His	Ile	Gln
	2150					2155					2160			
Asp	Glu	Arg	Val	Leu	Glu	Gln	Ala	Glu	Gly	Lys	Val	Glu	Glu	Pro
	2165					2170					2175			
Glu	Asn	Pro	Ala	Ala	Lys	Glu	Lys	Cys	Glu	Gly	Lys	Glu	Glu	Glu
	2180					2185					2190			
Glu	Glu	Thr	Asp	Gly	Ser	Gly	Lys	Glu	Ser	Lys	Gln	Glu	Cys	Glu
	2195					2200					2205			
Ala	Glu	Ala	Ser	Ser	Val	Lys	Asn	Glu	Leu	Lys	Gly	Val	Glu	Val
	2210					2215					2220			
Gly	Ala	Asp	Thr	Gly	Ser	Lys	Ser	Ile	Ser	Glu	Lys	Gly	Ser	Glu
	2225					2230					2235			
Glu	Asp	Glu	Glu	Glu	Lys	Leu	Glu	Asp	Asp	Asp	Lys	Ser	Glu	Glu
	2240					2245					2250			
Ser	Ser	Gln	Pro	Glu	Ala	Gly	Ala	Val	Ser	Arg	Gly	Lys	Asn	Phe
	2255					2260					2265			
Asp	Glu	Glu	Ser	Asn	Ala	Ser	Met	Ser	Thr	Ala	Arg	Asp	Glu	Thr
	2270					2275					2280			
Arg	Asp	Gly	Phe	Tyr	Met	Glu	Asp	Gly	Asp	Pro	Ser	Val	Ala	Gln
	2285					2290					2295			
Leu	Leu	His	Glu	Arg	Thr	Phe	Ala	Phe	Ser	Phe	Trp	Pro	Lys	Asp
	2300					2305					2310			

Arg Val Met Ile Asn Arg Leu Asp Asn Ile Cys Glu Ala Val Leu
 2315 2320 2325
 Lys Gly Lys Trp Pro Val Asn Arg Arg Gln Met Phe Asp Phe Gln
 2330 2335 2340
 Gly Leu Ile Pro Gly Tyr Thr Pro Thr Thr Val Asp Ser Pro Leu
 2345 2350 2355
 Gln Lys Arg Ser Phe Ala Glu Leu Ser Met Val Gly Gln Ala Ser
 2360 2365 2370
 Ile Ser Gly Ser Glu Asp Ile Thr Thr Ser Pro Gln Leu Ser Lys
 2375 2380 2385
 Glu Asp Ala Leu Asn Leu Ser Val Pro Arg Gln Arg Arg Arg Arg
 2390 2395 2400
 Arg Arg Lys Ile Glu Ile Glu Ala Glu Arg Ala Ala Lys Arg Arg
 2405 2410 2415
 Asn Leu Met Glu Met Val Ala Gln Leu Arg Glu Ser Gln Val Val
 2420 2425 2430
 Ser Glu Asn Gly Gln Glu Lys Val Val Asp Leu Ser Lys Ala Ser
 2435 2440 2445
 Arg Glu Ala Thr Ser Ser Thr Ser Asn Phe Ser Ser Leu Ser Ser
 2450 2455 2460
 Lys Phe Ile Leu Pro Asn Val Ser Thr Pro Val Ser Asp Ala Phe
 2465 2470 2475
 Lys Thr Gln Met Glu Leu Leu Gln Ala Gly Leu Ser Arg Thr Pro
 2480 2485 2490
 Thr Arg His Leu Leu Asn Gly Ser Leu Val Asp Gly Glu Pro Pro
 2495 2500 2505
 Met Lys Arg Arg Arg Gly Arg Arg Lys Asn Val Glu Gly Leu Asp
 2510 2515 2520
 Leu Leu Phe Met Ser His Lys Arg Thr Ser Leu Ser Ala Glu Asp
 2525 2530 2535

Ala	Glu	Val	Thr	Lys	Ala	Phe	Glu	Glu	Asp	Ile	Glu	Thr	Pro	Pro
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Thr	Arg	Asn	Ile	Pro	Ser	Pro	Gly	Gln	Leu	Asp	Pro	Asp	Thr	Arg
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Ile	Pro	Val	Ile	Asn	Leu	Glu	Asp	Gly	Thr	Arg	Leu	Val	Gly	Glu
	2570					2575					2580			
Asp	Ala	Pro	Lys	Asn	Lys	Asp	Leu	Val	Glu	Trp	Leu	Lys	Leu	His
	2585					2590					2595			
Pro	Thr	Tyr	Thr	Val	Asp	Met	Pro	Ser	Tyr	Val	Pro	Lys	Asn	Ala
	2600					2605					2610			
Asp	Val	Leu	Phe	Ser	Ser	Phe	Gln	Lys	Pro	Lys	Gln	Lys	Arg	His
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Arg	Cys	Arg	Asn	Pro	Asn	Lys	Leu	Asp	Ile	Asn	Thr	Leu	Thr	Gly
	2630					2635					2640			
Glu	Glu	Arg	Val	Pro	Val	Val	Asn	Lys	Arg	Asn	Gly	Lys	Lys	Met
	2645					2650					2655			
Gly	Gly	Ala	Met	Ala	Pro	Pro	Met	Lys	Asp	Leu	Pro	Arg	Trp	Leu
	2660					2665					2670			
Glu	Glu	Asn	Pro	Glu	Phe	Ala	Val	Ala	Pro	Asp	Trp	Thr	Asp	Ile
	2675					2680					2685			
Val	Lys	Gln	Ser	Gly	Phe	Val	Pro	Glu	Ser	Met	Phe	Asp	Arg	Leu
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Leu	Thr	Gly	Pro	Val	Val	Arg	Gly	Glu	Gly	Ala	Ser	Arg	Arg	Gly
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Arg	Arg	Pro	Lys	Ser	Glu	Ile	Ala	Arg	Ala	Ala	Ala	Ala	Ala	Ala
	2720					2725					2730			
Ala	Val	Ala	Ser	Thr	Ser	Gly	Ile	Asn	Pro	Leu	Leu	Val	Asn	Ser
	2735					2740					2745			

Leu	Phe	Ala	Gly	Met	Asp	Leu	Thr	Ser	Leu	Gln	Asn	Leu	Gln	Asn
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Leu	Gln	Ser	Leu	Gln	Leu	Ala	Gly	Leu	Met	Gly	Phe	Pro	Pro	Gly
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Leu	Ala	Thr	Ala	Ala	Thr	Ala	Gly	Gly	Asp	Ala	Lys	Asn	Pro	Ala
2780						2785					2790			
Ala	Val	Leu	Pro	Leu	Met	Leu	Pro	Gly	Met	Ala	Gly	Leu	Pro	Asn
2795						2800					2805			
Val	Phe	Gly	Leu	Gly	Gly	Leu	Leu	Asn	Asn	Pro	Leu	Ser	Ala	Ala
2810						2815					2820			
Thr	Gly	Asn	Thr	Thr	Thr	Ala	Ser	Ser	Gln	Gly	Glu	Pro	Glu	Asp
2825						2830					2835			
Ser	Thr	Ser	Lys	Gly	Glu	Glu	Lys	Gly	Asn	Glu	Asn	Glu	Asp	Glu
2840						2845					2850			
Asn	Lys	Asp	Ser	Glu	Lys	Ser	Thr	Asp	Ala	Val	Ser	Ala	Ala	Asp
2855						2860					2865			
Ser	Ala	Asn	Gly	Ser	Val	Gly	Ala	Ala	Thr	Ala	Pro	Ala	Gly	Leu
2870						2875					2880			
Pro	Ser	Asn	Pro	Leu	Ala	Phe	Asn	Pro	Phe	Leu	Leu	Ser	Thr	Met
2885						2890					2895			
Ala	Pro	Gly	Leu	Phe	Tyr	Pro	Ser	Met	Phe	Leu	Pro	Pro	Gly	Leu
2900						2905					2910			
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2915						2920					2925			
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 Met
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 gca gat cca gga atg atg agt ctt ttt ggc gag gat ggg aat att ttc 225
 Ala Asp Pro Gly Met Met Ser Leu Phe Gly Glu Asp Gly Asn Ile Phe
 5 10 15
 agt gaa ggt ctt gaa ggc ctc gga gaa tgt ggt tac ccg gaa aat cca 273
 Ser Glu Gly Leu Glu Gly Leu Gly Glu Cys Gly Tyr Pro Glu Asn Pro
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 gta aat cct atg ggt cag caa atg cca ata gac caa ggc ttt gcc tct 321
 Val Asn Pro Met Gly Gln Gln Met Pro Ile Asp Gln Gly Phe Ala Ser
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 Leu Gln Pro Ser Leu His His Pro Ser Thr Asn Gln Asn Gln Thr Lys
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 ctg aca cat ttt gat cac tat aat cag tat gaa caa caa aag atg cat 417
 Leu Thr His Phe Asp His Tyr Asn Gln Tyr Glu Gln Gln Lys Met His
 70 75 80
 ctg atg gat cag ccg aac aga atg atg agc aac acc cct ggg aac gga 465
 Leu Met Asp Gln Pro Asn Arg Met Met Ser Asn Thr Pro Gly Asn Gly
 85 90 95
 ctc gcg tct ccg cac tcg cag tat cac acc cct ccc gtt cct cag gtg 513
 Leu Ala Ser Pro His Ser Gln Tyr His Thr Pro Pro Val Pro Gln Val
 100 105 110
 ccc cat ggt ggc agt ggt ggc ggt cag atg ggt gtc tac cct ggc atg 561

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Gln	Asn	Glu	Arg	His	Gly	Gln	Ser	Phe	Val	Asp	Ser	Ser	Ser	Met	Trp	
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Gly	Pro	Arg	Ala	Val	Gln	Val	Pro	Asp	Gln	Ile	Arg	Ala	Pro	Tyr	Gln	
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Gln	Gln	Gln	Pro	Gln	Pro	Gln	Pro	Pro	Gln	Pro	Ala	Pro	Ser	Gly	Pro	
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Pro	Ala	Gln	Gly	His	Pro	Gln	His	Met	Gln	Gln	Met	Gly	Ser	Tyr	Met	
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gca	cgt	ggg	gat	ttt	tcc	atg	cag	cag	cat	ggt	cag	cca	cag	cag	agg	801
Ala	Arg	Gly	Asp	Phe	Ser	Met	Gln	Gln	His	Gly	Gln	Pro	Gln	Gln	Arg	
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Met	Ser	Gln	Phe	Ser	Gln	Gly	Gln	Glu	Gly	Leu	Asn	Gln	Gly	Asn	Pro	
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Phe	Ile	Ala	Thr	Ser	Gly	Pro	Gly	His	Leu	Ser	His	Val	Pro	Gln	Gln	
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agt	ccc	agc	atg	gca	cct	tcc	ttg	cgt	cac	tgc	gtg	cag	cag	ttc	cat	945
Ser	Pro	Ser	Met	Ala	Pro	Ser	Leu	Arg	His	Ser	Val	Gln	Gln	Phe	His	
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His	His	Pro	Ser	Thr	Ala	Leu	His	Gly	Glu	Ser	Val	Ala	His	Ser	Pro	
		260					265					270				
aga	ttc	tcc	ccg	aat	cct	ccc	caa	caa	ggg	gct	gtt	agg	ccg	caa	acc	1041
Arg	Phe	Ser	Pro	Asn	Pro	Pro	Gln	Gln	Gly	Ala	Val	Arg	Pro	Gln	Thr	
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ctt	aac	ttt	agt	tct	cgg	agc	cag	aca	gtc	ccc	tct	cct	act	ata	aac	1089
Leu	Asn	Phe	Ser	Ser	Arg	Ser	Gln	Thr	Val	Pro	Ser	Pro	Thr	Ile	Asn	
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aac	tca	ggg	cag	tat	tct	cga	tat	cct	tac	agt	aac	cta	aat	cag	gga	1137
Asn	Ser	Gly	Gln	Tyr	Ser	Arg	Tyr	Pro	Tyr	Ser	Asn	Leu	Asn	Gln	Gly	
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tta	gtt	aac	aat	aca	ggg	atg	aat	caa	aat	tta	ggc	ctt	aca	aat	aat	1185
Leu	Val	Asn	Asn	Thr	Gly	Met	Asn	Gln	Asn	Leu	Gly	Leu	Thr	Asn	Asn	
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act	cca	atg	aat	cag	tcc	gta	cca	aga	tac	ccc	aat	gct	gta	gga	ttc	1233
Thr	Pro	Met	Asn	Gln	Ser	Val	Pro	Arg	Tyr	Pro	Asn	Ala	Val	Gly	Phe	
		340					345					350				

cca tca aac agt ggt caa gga cta atg cac cag cag ccc atc cac ccc Pro Ser Asn Ser Gly Gln Gly Leu Met His Gln Gln Pro Ile His Pro 355 360 365	1281
agt ggc tca ctt aac caa atg aac aca caa act atg cat cct tca cag Ser Gly Ser Leu Asn Gln Met Asn Thr Gln Thr Met His Pro Ser Gln 370 375 380 385	1329
cct cag gga act tat gcc tct cca cct ccc atg tca ccc atg aaa gca Pro Gln Gly Thr Tyr Ala Ser Pro Pro Pro Met Ser Pro Met Lys Ala 390 395 400	1377
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tcg gca cca agg gaa ttg act ggg cac atg agg cca aat ggt tgt cct Ser Ala Pro Arg Glu Leu Thr Gly His Met Arg Pro Asn Gly Cys Pro 470 475 480	1617
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cca cac cct cat cac cag cct tgg gca cag ctc cac cca tca ccc cag Pro His Pro His His Gln Pro Trp Ala Gln Leu His Pro Ser Pro Gln 530 535 540 545	1809
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cga cat aga tgt cga aac cct aat aaa ttg gat ata aac act ttg aca	1953

Arg	His	Arg	Cys	Arg	Asn	Pro	Asn	Lys	Leu	Asp	Ile	Asn	Thr	Leu	Thr	
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Gly	Glu	Glu	Arg	Val	Pro	Val	Val	Asn	Lys	Arg	Asn	Gly	Lys	Lys	Met	
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Glu	Asn	Pro	Glu	Phe	Ala	Val	Ala	Pro	Asp	Trp	Thr	Asp	Ile	Val	Lys	
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Gln	Ser	Gly	Phe	Val	Pro	Glu	Ser	Met	Phe	Asp	Arg	Leu	Leu	Thr	Gly	
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cct	gta	gtg	cgg	gga	gag	gga	gcg	agc	aga	aga	gga	aga	agg	ccc	aaa	2193
Pro	Val	Val	Arg	Gly	Glu	Gly	Ala	Ser	Arg	Arg	Gly	Arg	Arg	Pro	Lys	
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agt	gag	atc	gcc	aga	gca	gcc	gcg	gcc	gcc	gct	gct	gtg	gcc	tcc	acg	2241
Ser	Glu	Ile	Ala	Arg	Ala	Ala	Ala	Ala	Ala	Ala	Ala	Val	Ala	Ser	Thr	
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Gly	Leu	Met	Gly	Phe	Pro	Pro	Gly	Leu	Ala	Thr	Ala	Ala	Thr	Ala	Gly	
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Gly	Asp	Ala	Lys	Asn	Pro	Ala	Ala	Val	Leu	Pro	Leu	Met	Leu	Pro	Gly	
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Glu	Pro	Glu	Asp	Ser	Thr	Ser	Lys	Gly	Glu	Glu	Lys	Gly	Asn	Glu	Asn	
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gaa	gac	gag	aac	aaa	gac	tct	gag	aaa	agc	aca	gat	gct	gtt	tcg	gct	2625
Glu	Asp	Glu	Asn	Lys	Asp	Ser	Glu	Lys	Ser	Thr	Asp	Ala	Val	Ser	Ala	
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gaa gag cta gac tca ctt gat ggg ggg gat gaa ata gaa aac aat gaa Glu Glu Leu Asp Ser Leu Asp Gly Gly Asp Glu Ile Glu Asn Asn Glu 930 935 940 945	3009
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Pro	Val	Asn	Pro	Met	Gly	Gln	Gln	Met	Pro	Ile	Asp	Gln	Gly	Phe	Ala				
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Ser	Leu	Gln	Pro	Ser	Leu	His	His	Pro	Ser	Thr	Asn	Gln	Asn	Gln	Thr				
	50					55					60								
Lys	Leu	Thr	His	Phe	Asp	His	Tyr	Asn	Gln	Tyr	Glu	Gln	Gln	Lys	Met				
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His	Leu	Met	Asp	Gln	Pro	Asn	Arg	Met	Met	Ser	Asn	Thr	Pro	Gly	Asn				
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Gly	Leu	Ala	Ser	Pro	His	Ser	Gln	Tyr	His	Thr	Pro	Pro	Val	Pro	Gln				
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Val	Pro	His	Gly	Gly	Ser	Gly	Gly	Gly	Gln	Met	Gly	Val	Tyr	Pro	Gly				
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Trp	Gly	Pro	Arg	Ala	Val	Gln	Val	Pro	Asp	Gln	Ile	Arg	Ala	Pro	Tyr				
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Gln	Gln	Gln	Gln	Pro	Gln	Pro	Gln	Pro	Pro	Gln	Pro	Ala	Pro	Ser	Gly				
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Pro	Pro	Ala	Gln	Gly	His	Pro	Gln	His	Met	Gln	Gln	Met	Gly	Ser	Tyr				
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Met	Ala	Arg	Gly	Asp	Phe	Ser	Met	Gln	Gln	His	Gly	Gln	Pro	Gln	Gln				
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Arg	Met	Ser	Gln	Phe	Ser	Gln	Gly	Gln	Glu	Gly	Leu	Asn	Gln	Gly	Asn				
	210					215					220								
Pro	Phe	Ile	Ala	Thr	Ser	Gly	Pro	Gly	His	Leu	Ser	His	Val	Pro	Gln				
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Gln Ser Pro Ser Met Ala Pro Ser Leu Arg His Ser Val Gln Gln Phe
245 250 255

His His His Pro Ser Thr Ala Leu His Gly Glu Ser Val Ala His Ser
260 265 270

Pro Arg Phe Ser Pro Asn Pro Pro Gln Gln Gly Ala Val Arg Pro Gln
275 280 285

Thr Leu Asn Phe Ser Ser Arg Ser Gln Thr Val Pro Ser Pro Thr Ile
290 295 300

Asn Asn Ser Gly Gln Tyr Ser Arg Tyr Pro Tyr Ser Asn Leu Asn Gln
305 310 315 320

Gly Leu Val Asn Asn Thr Gly Met Asn Gln Asn Leu Gly Leu Thr Asn
325 330 335

Asn Thr Pro Met Asn Gln Ser Val Pro Arg Tyr Pro Asn Ala Val Gly
340 345 350

Phe Pro Ser Asn Ser Gly Gln Gly Leu Met His Gln Gln Pro Ile His
355 360 365

Pro Ser Gly Ser Leu Asn Gln Met Asn Thr Gln Thr Met His Pro Ser
370 375 380

Gln Pro Gln Gly Thr Tyr Ala Ser Pro Pro Pro Met Ser Pro Met Lys
385 390 395 400

Ala Met Ser Asn Pro Ala Gly Thr Pro Pro Pro Gln Val Arg Pro Gly
405 410 415

Ser Ala Gly Ile Pro Met Glu Val Gly Ser Tyr Pro Asn Met Pro His
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Pro Gln Pro Ser His Gln Pro Pro Gly Ala Met Gly Ile Gly Gln Arg
435 440 445

Asn Met Gly Pro Arg Asn Met Gln Gln Ser Arg Pro Phe Ile Gly Met
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Ser Ser Ala Pro Arg Glu Leu Thr Gly His Met Arg Pro Asn Gly Cys

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Pro Gly Val Gly Leu Gly Asp Pro Gln Ala Ile Gln Glu Arg Leu Ile						
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Pro Gly Gln Gln His Pro Gly Gln Gln Pro Ser Phe Gln Gln Leu Pro						
		500		505		510
Thr Cys Pro Pro Leu Gln Pro His Pro Gly Leu His His Gln Ser Ser						
		515		520		525
Pro Pro His Pro His His Gln Pro Trp Ala Gln Leu His Pro Ser Pro						
		530		535		540
Gln Asn Thr Pro Gln Lys Val Pro Val His Gln His Ser Pro Ser Glu						
545		550		555		560
Pro Phe Leu Glu Lys Pro Val Pro Asp Met Thr Gln Lys Pro Lys Gln						
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Lys Arg His Arg Cys Arg Asn Pro Asn Lys Leu Asp Ile Asn Thr Leu						
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Thr Gly Glu Glu Arg Val Pro Val Val Asn Lys Arg Asn Gly Lys Lys						
		595		600		605
Met Gly Gly Ala Met Ala Pro Pro Met Lys Asp Leu Pro Arg Trp Leu						
		610		615		620
Glu Glu Asn Pro Glu Phe Ala Val Ala Pro Asp Trp Thr Asp Ile Val						
625		630		635		640
Lys Gln Ser Gly Phe Val Pro Glu Ser Met Phe Asp Arg Leu Leu Thr						
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Gly Pro Val Val Arg Gly Glu Gly Ala Ser Arg Arg Gly Arg Arg Pro						
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Lys Ser Glu Ile Ala Arg Ala Ala Ala Ala Ala Ala Val Ala Ser						
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Thr Ser Gly Ile Asn Pro Leu Leu Val Asn Ser Leu Phe Ala Gly Met						
		690		695		700

Asp Leu Thr Ser Leu Gln Asn Leu Gln Asn Leu Gln Ser Leu Gln Leu
705 710 715 720

Ala Gly Leu Met Gly Phe Pro Pro Gly Leu Ala Thr Ala Ala Thr Ala
725 730 735

Gly Gly Asp Ala Lys Asn Pro Ala Ala Val Leu Pro Leu Met Leu Pro
740 745 750

Gly Met Ala Gly Leu Pro Asn Val Phe Gly Leu Gly Gly Leu Leu Asn
755 760 765

Asn Pro Leu Ser Ala Ala Thr Gly Asn Thr Thr Thr Ala Ser Ser Gln
770 775 780

Gly Glu Pro Glu Asp Ser Thr Ser Lys Gly Glu Glu Lys Gly Asn Glu
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Asn Glu Asp Glu Asn Lys Asp Ser Glu Lys Ser Thr Asp Ala Val Ser
805 810 815

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cga Arg 1465	aaa Lys	ggg Gly	gcc Ala	tat Tyr	ggt Gly 1470	gca Ala	ctc Leu	atg Met	gat Asp	gag Glu 1475	gag Glu	gat Asp	gaa Glu	ggg Gly	4950
tct Ser 1480	aaa Lys	ttc Phe	tgt Cys	gaa Glu	gaa Glu 1485	gat Asp	att Ile	gat Asp	cag Gln	atc Ile 1490	ctc Leu	cta Leu	cgt Arg	cga Arg	4995
acc Thr 1495	cac His	acc Thr	att Ile	acc Thr	att Ile 1500	gag Glu	tca Ser	gaa Glu	ggg Gly	aaa Lys 1505	ggt Gly	tcc Ser	aca Thr	ttt Phe	5040
gct Ala 1510	aag Lys	gcc Ala	agt Ser	ttt Phe	gtt Val 1515	gca Ala	tct Ser	gga Gly	aat Asn	agg Arg 1520	aca Thr	gat Asp	att Ile	tcc Ser	5085
ttg Leu 1525	gat Asp	gat Asp	cca Pro	aat Asn	ttc Phe 1530	tgg Trp	caa Gln	aag Lys	tgg Trp	gct Ala 1535	aag Lys	aag Lys	gct Ala	gaa Glu	5130
ttg Leu 1540	gat Asp	att Ile	gat Asp	gcc Ala	tta Leu 1545	aat Asn	ggg Gly	agg Arg	aac Asn	aac Asn 1550	ctg Leu	gtt Val	att Ile	gat Asp	5175
act Thr 1555	cca Pro	aga Arg	gtg Val	aga Arg	aag Lys 1560	cag Gln	acc Thr	agg Arg	ctc Leu	tac Tyr 1565	agt Ser	gca Ala	gtg Val	aag Lys	5220
gaa Glu 1570	gat Asp	gag Glu	ctg Leu	atg Met	gag Glu 1575	ttc Phe	tca Ser	gac Asp	ttg Leu	gaa Glu 1580	agt Ser	gat Asp	tct Ser	gaa Glu	5265
gaa Glu 1585	aag Lys	ccc Pro	tgt Cys	gca Ala	aag Lys 1590	cca Pro	cgg Arg	cgt Arg	ccc Pro	cag Gln 1595	gat Asp	aag Lys	tca Ser	cag Gln	5310
ggc Gly 1600	tat Tyr	gca Ala	agg Arg	agt Ser	gaa Glu 1605	tgt Cys	ttc Phe	agg Arg	gtg Val	gag Glu 1610	aag Lys	aat Asn	ctg Leu	ctt Leu	5355
gtc Val 1615	tat Tyr	ggt Gly	gtg Val	aat Asn	tgt Cys 1620	tgc Cys	tag	ttttgaccca	ggatttccca						5399
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Ser Leu Gln Pro Ser Leu His His Pro Ser Thr Asn Gln Asn Gln Thr
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Lys Leu Thr His Phe Asp His Tyr Asn Gln Tyr Glu Gln Gln Lys Met
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His Leu Met Asp Gln Pro Asn Arg Met Met Ser Asn Thr Pro Gly Asn
85 90 95

Gly Leu Ala Ser Pro His Ser Gln Tyr His Thr Pro Pro Val Pro Gln
100 105 110

Val Pro His Gly Gly Ser Gly Gly Gly Gln Met Gly Val Tyr Pro Gly
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Met Gln Asn Glu Arg His Gly Gln Ser Phe Val Asp Ser Ser Ser Met
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Trp Gly Pro Arg Ala Val Gln Val Pro Asp Gln Ile Arg Ala Pro Tyr
145 150 155 160

Gln Gln Gln Gln Pro Gln Pro Gln Pro Pro Gln Pro Ala Pro Ser Gly
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Pro Pro Ala Gln Gly His Pro Gln His Met Gln Gln Met Gly Ser Tyr
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Met Ala Arg Gly Asp Phe Ser Met Gln Gln His Gly Gln Pro Gln Gln
195 200 205

Arg Met Ser Gln Phe Ser Gln Gly Gln Glu Gly Leu Asn Gln Gly Asn
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Pro Phe Ile Ala Thr Ser Gly Pro Gly His Leu Ser His Val Pro Gln
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Gln Ser Pro Ser Met Ala Pro Ser Leu Arg His Ser Val Gln Gln Phe
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His His His Pro Ser Thr Ala Leu His Gly Glu Ser Val Ala His Ser
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Pro Arg Phe Ser Pro Asn Pro Pro Gln Gln Gly Ala Val Arg Pro Gln
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Thr Leu Asn Phe Ser Ser Arg Ser Gln Thr Val Pro Ser Pro Thr Ile
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Gly Leu Val Asn Asn Thr Gly Met Asn Gln Asn Leu Gly Leu Thr Asn
325 330 335

Asn Thr Pro Met Asn Gln Ser Val Pro Arg Tyr Pro Asn Ala Val Gly
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Phe Pro Ser Asn Ser Gly Gln Gly Leu Met His Gln Gln Pro Ile His
355 360 365

Pro Ser Gly Ser Leu Asn Gln Met Asn Thr Gln Thr Met His Pro Ser
370 375 380

Gln Pro Gln Gly Thr Tyr Ala Ser Pro Pro Pro Met Ser Pro Met Lys
385 390 395 400

Ala Met Ser Asn Pro Ala Gly Thr Pro Pro Pro Gln Val Arg Pro Gly
405 410 415

Ser Ala Gly Ile Pro Met Glu Val Gly Ser Tyr Pro Asn Met Pro His
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Pro Gln Pro Ser His Gln Pro Pro Gly Ala Met Gly Ile Gly Gln Arg
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Ser Ser Ala Pro Arg Glu Leu Thr Gly His Met Arg Pro Asn Gly Cys
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Pro Gly Gln Gln His Pro Gly Gln Gln Pro Ser Phe Gln Gln Leu Pro
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Thr Cys Pro Pro Leu Gln Pro His Pro Gly Leu His His Gln Ser Ser
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Pro Pro His Pro His His Gln Pro Trp Ala Gln Leu His Pro Ser Pro
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Gln Asn Thr Pro Gln Lys Val Pro Val His Gln His Ser Pro Ser Glu
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Pro Phe Leu Glu Lys Pro Val Pro Asp Met Thr Gln Val Ser Gly Pro
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Gln Pro Gln Gln Lys Lys Lys Lys Lys Lys Asn Asn His Ile Val Ala
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Glu Asp Pro Ser Lys Gly Phe Gly Lys Asp Asp Phe Pro Gly Gly Val
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Asp Asn Gln Glu Leu Asn Arg Asn Ser Leu Asp Gly Ser Gln Glu Glu
 625 630 635 640

Lys Lys Lys Lys Lys Arg Ser Lys Ala Lys Lys Asp Pro Lys Glu Pro
 645 650 655

Lys Glu Pro Lys Glu Lys Lys Glu Pro Lys Glu Pro Lys Thr Pro Lys
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Ala Pro Lys Ile Pro Lys Glu Pro Lys Glu Lys Lys Ala Lys Thr Ala
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Thr Pro Lys Pro Lys Ser Ser Lys Lys Ser Ser Asn Lys Lys Pro Asp
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 Ser Glu Ala Ser Ala Leu Lys Lys Lys Val Asn Lys Gly Lys Thr Glu
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 Gly Ser Glu Asn Ser Asp Leu Asp Lys Thr Pro Pro Pro Ser Pro Pro
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 Pro Glu Glu Asp Glu Asp Pro Gly Val Gln Lys Arg Arg Ser Ser Arg
 740 745 750
 Gln Val Lys Arg Lys Arg Tyr Thr Glu Asp Leu Glu Phe Lys Ile Ser
 755 760 765
 Asp Glu Glu Ala Asp Asp Ala Asp Ala Ala Gly Arg Asp Ser Pro Ser
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 Asn Thr Ser Gln Ser Glu Gln Gln Glu Ser Val Asp Ala Glu Gly Pro
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 Val Val Glu Lys Ile Met Ser Ser Arg Ser Val Lys Lys Gln Lys Glu
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 Ser Gly Glu Glu Val Glu Ile Glu Glu Phe Tyr Val Lys Tyr Lys Asn
 820 825 830
 Phe Ser Tyr Leu His Cys Gln Trp Ala Ser Ile Glu Asp Leu Glu Lys
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 Asp Lys Arg Ile Gln Gln Lys Ile Lys Arg Phe Lys Ala Lys Gln Gly
 850 855 860
 Gln Asn Lys Phe Leu Ser Glu Ile Glu Asp Glu Leu Phe Asn Pro Asp
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 Tyr Val Glu Val Asp Arg Ile Met Asp Phe Ala Arg Ser Thr Asp Asp
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 Arg Gly Glu Pro Val Thr His Tyr Leu Val Lys Trp Cys Ser Leu Pro
 900 905 910
 Tyr Glu Asp Ser Thr Trp Glu Arg Arg Gln Asp Ile Asp Gln Ala Lys
 915 920 925

Ile Glu Glu Phe Glu Lys Leu Met Ser Arg Glu Pro Glu Thr Glu Arg
930 935 940

Val Glu Arg Pro Pro Ala Asp Asp Trp Lys Lys Ser Glu Ser Ser Arg
945 950 955 960

Glu Tyr Lys Asn Asn Asn Lys Leu Arg Glu Tyr Gln Leu Glu Gly Val
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Asn Trp Leu Leu Phe Asn Trp Tyr Asn Met Arg Asn Cys Ile Leu Ala
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Asp Glu Met Gly Leu Gly Lys Thr Ile Gln Ser Ile Thr Phe Leu Tyr
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Glu Ile Tyr Leu Lys Gly Ile His Gly Pro Phe Leu Val Ile Ala
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Pro Leu Ser Thr Ile Pro Asn Trp Glu Arg Glu Phe Arg Thr Trp
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Thr Glu Leu Asn Val Val Val Tyr His Gly Ser Gln Ala Ser Arg
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Trp Arg Cys Val Val Ile Asp Glu Ala His Arg Leu Lys Asn Arg
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Lys Val Leu Leu Thr Gly Thr Pro Leu Gln Asn Thr Val Glu Glu
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 Glu Thr Thr Phe Met Gln Glu Phe Gly Asp Leu Lys Thr Glu Glu
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 Asp Tyr Leu Ile Gln Arg Arg Tyr Pro Tyr Glu Arg Ile Asp Gly
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 Arg Val Arg Gly Asn Leu Arg Gln Ala Ala Ile Asp Arg Phe Ser
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 Lys Pro Asp Ser Asp Arg Phe Val Phe Leu Leu Cys Thr Arg Ala
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Arg	Cys	His	Arg	Ile	Gly	Gln	Ser	Lys	Ser	Val	Lys	Ile	Tyr	Arg
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Gln	Ile	Leu	Leu	Arg	Arg	Thr	His	Thr	Ile	Thr	Ile	Glu	Ser	Glu
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Gly	Lys	Gly	Ser	Thr	Phe	Ala	Lys	Ala	Ser	Phe	Val	Ala	Ser	Gly
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Leu Glu Ser Asp Ser Glu Glu Lys Pro Cys Ala Lys Pro Arg Arg
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