

SEQUENCE LISTING

<110> Regeneron Pharmaceuticals, Inc.
Deshpande, Dipali
Burakov, Darya
Chen, Gang
Fandl, James P.

<120> EFFICIENT SELECTIVITY OF RECOMBINANT PROTEINS

<130> 8700WO

<150> US 62/039,416

<151> 2014-08-19

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<170> PatentIn version 3.5

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His Asn Trp Tyr Pro Ser Arg Val Phe Val Gly Asp Thr Phe Cys Tyr
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Ser Leu Pro Gln Leu Leu His Ile Ile Pro Cys Pro Arg His Arg Ile
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Pro Arg Leu Asn Ile Lys Thr Gly Lys Leu Glu Met Ser Tyr Ser Lys
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Ala Glu Ser Leu Gln Leu Val Thr Val His Gln Ser Glu Thr Glu Asp
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Cys Phe Val Lys Glu Gln Cys Lys Ala Phe Pro His His Glu Phe Val
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Lys Thr Met Leu Leu Phe Phe Met Pro Gln Val Phe Asn Phe Leu Tyr
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Ala Glu Ser Leu Arg Leu Val Thr Ile His Gln Ser Asp Thr Glu Asp
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His Asn Trp Tyr Pro Ser Arg Val Phe Val Gly Asp Thr Phe Cys Tyr
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Lys Thr Met Leu Leu Phe Phe Met Pro Gln Val Phe Asn Phe Leu Tyr
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Pro Arg Leu Asn Ile Lys Thr Gly Lys Leu Glu Met Ser Tyr Ser Lys
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Leu Leu Gln Ile Leu Gly Ser Ala Ile Thr Phe Ser Ile Arg Tyr Gln
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Leu Val Arg Leu Phe Tyr Asp Val
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<210> 7
 <211> 408
 <212> PRT
 <213> Canis familiaris

<400> 7

Met Trp Ala Phe Pro Glu Leu Pro Met Pro Leu Leu Val Asn Leu Val
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Gly Ser Leu Leu Gly Phe Val Ala Thr Val Thr Leu Ile Pro Ala Phe
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Arg Gly His Phe Ile Ala Ala His Leu Cys Gly Gln Asp Leu Asn Lys
 35 40 45

Thr Gly Arg Gln Gln Ile Pro Glu Ser Gln Gly Val Ile Ser Gly Ala
 50 55 60

Val Phe Leu Ile Ile Leu Phe Cys Phe Ile Pro Phe Pro Phe Leu Asn
 65 70 75 80

Cys Phe Met Glu Glu Gln Cys Lys Ala Phe Pro His His Glu Phe Val
 85 90 95

Ala Leu Ile Gly Ala Leu Leu Ala Ile Cys Cys Met Ile Phe Leu Gly
 100 105 110

Phe Ala Asp Asp Val Leu Asn Leu Arg Trp Arg His Lys Leu Leu Leu
 115 120 125

Pro Thr Ala Ala Ser Leu Pro Leu Leu Met Val Tyr Phe Thr Asn Phe
 130 135 140

Gly Asn Thr Thr Ile Val Val Pro Lys Pro Phe Arg Pro Ile Leu Gly
 145 150 155 160

Leu His Leu Asp Leu Gly Ile Leu Tyr Tyr Val Tyr Met Gly Leu Leu
 165 170 175

Ala Val Phe Cys Thr Asn Ala Ile Asn Ile Leu Ala Gly Ile Asn Gly
 180 185 190

Leu Glu Ala Gly Gln Ser Leu Val Ile Ser Ala Ser Ile Ile Val Phe

195		200		205											
Asn	Leu	Val	Glu	Leu	Glu	Gly	Asp	Tyr	Arg	Asp	Asp	His	Val	Phe	Ser
210						215					220				
Leu	Tyr	Phe	Met	Ile	Pro	Phe	Phe	Phe	Thr	Thr	Leu	Gly	Leu	Leu	Tyr
225					230					235					240
His	Asn	Trp	Tyr	Pro	Ser	Gln	Val	Phe	Val	Gly	Asp	Thr	Phe	Cys	Tyr
				245					250					255	
Phe	Ala	Gly	Met	Thr	Phe	Ala	Val	Val	Gly	Ile	Leu	Gly	His	Phe	Ser
			260					265					270		
Lys	Thr	Met	Leu	Leu	Phe	Phe	Met	Pro	Gln	Val	Phe	Asn	Phe	Leu	Tyr
		275					280					285			
Ser	Leu	Pro	Gln	Leu	Leu	His	Ile	Ile	Pro	Cys	Pro	Arg	His	Arg	Ile
	290					295					300				
Pro	Arg	Leu	Asn	Thr	Lys	Thr	Gly	Lys	Leu	Glu	Met	Ser	Tyr	Ser	Lys
305					310					315					320
Phe	Lys	Thr	Lys	Ser	Leu	Ser	Phe	Leu	Gly	Asn	Phe	Ile	Leu	Lys	Val
				325					330					335	
Ala	Ala	Ser	Leu	Gln	Leu	Val	Thr	Val	His	Gln	Ser	Glu	Asn	Glu	Asp
			340					345					350		
Gly	Ala	Phe	Thr	Glu	Cys	Asn	Asn	Met	Thr	Leu	Leu	Asn	Leu	Leu	Leu
		355					360					365			
Lys	Val	Leu	Gly	Pro	Met	His	Glu	Arg	Asn	Leu	Thr	Leu	Leu	Leu	Leu
	370					375					380				
Leu	Leu	Gln	Ile	Leu	Gly	Ser	Ala	Val	Thr	Phe	Ser	Ile	Arg	Tyr	Gln
385					390					395					400
Leu	Val	Arg	Leu	Phe	Tyr	Asp	Val								
				405											

<210> 8
 <211> 408
 <212> PRT

<213> Cavia porcellus

<400> 8

Met Trp Ala Phe Ser Glu Val Pro Ile Pro Leu Leu Val Asn Leu Ile
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Gly Ser Leu Leu Gly Phe Val Ala Thr Leu Thr Leu Ile Pro Ala Phe
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Arg Gly His Phe Ile Ala Ala Arg Leu Cys Gly Gln Asp Leu Asn Lys
35 40 45

Thr Asn Arg Gln Gln Ile Pro Glu Ser Gln Gly Val Ile Ser Gly Ala
50 55 60

Val Phe Leu Ile Ile Leu Phe Cys Phe Ile Pro Phe Pro Phe Leu Asn
65 70 75 80

Cys Phe Val Lys Glu Gln Cys Lys Ala Phe Pro His His Glu Phe Val
85 90 95

Ala Leu Ile Gly Ala Leu Leu Ala Ile Cys Cys Met Ile Phe Leu Gly
100 105 110

Phe Ala Asp Asp Val Leu Asn Leu Arg Trp Arg His Lys Leu Leu Leu
115 120 125

Pro Thr Ala Ala Ser Leu Pro Leu Leu Met Val Tyr Phe Thr Asn Phe
130 135 140

Gly Asn Thr Thr Ile Val Val Pro Lys Pro Phe Arg Pro Val Leu Gly
145 150 155 160

Leu His Leu Asp Leu Gly Ile Leu Tyr Tyr Val Tyr Met Gly Leu Leu
165 170 175

Ala Val Phe Cys Thr Asn Ala Ile Asn Ile Leu Ala Gly Ile Asn Gly
180 185 190

Leu Glu Ala Gly Gln Ser Leu Val Ile Ser Ala Ser Ile Ile Val Phe
195 200 205

Asn Leu Val Glu Leu Gln Gly Asp Tyr Arg Asp Asp His Val Phe Ser
210 215 220

Leu Tyr Phe Met Ile Pro Phe Phe Phe Thr Thr Leu Gly Leu Leu Tyr
 225 230 235 240

His Asn Trp Tyr Pro Ser Gln Val Phe Val Gly Asp Thr Phe Cys Tyr
 245 250 255

Phe Ala Gly Met Thr Phe Ala Val Val Gly Ile Leu Gly His Phe Ser
 260 265 270

Lys Thr Met Leu Leu Phe Phe Met Pro Gln Val Phe Asn Phe Leu Tyr
 275 280 285

Ser Leu Pro Gln Leu Leu His Ile Ile Pro Cys Pro Arg His Arg Ile
 290 295 300

Pro Arg Leu Asn Thr Lys Thr Gly Lys Leu Glu Met Ser Tyr Ser Lys
 305 310 315 320

Phe Lys Thr Asn Ser Leu Ser Phe Leu Gly Thr Phe Ile Leu Lys Val
 325 330 335

Ala Glu Arg Leu Gln Leu Val Thr Val His Arg Ser Glu Gly Glu Asp
 340 345 350

Gly Ala Phe Thr Glu Cys Asn Asn Met Thr Leu Ile Asn Leu Leu Leu
 355 360 365

Lys Ile Phe Gly Pro Ile His Glu Arg Asn Leu Thr Leu Leu Leu Leu
 370 375 380

Leu Leu Gln Ile Val Gly Ser Ala Val Thr Phe Ser Ile Arg Tyr Gln
 385 390 395 400

Leu Val Arg Leu Phe Tyr Asp Val
 405

<210> 9
 <211> 410
 <212> PRT
 <213> Rattus norvegicus

<400> 9

Met Trp Ala Phe Pro Glu Leu Pro Leu Pro Leu Pro Leu Leu Val Asn

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Leu Ile Gly Ser Leu Leu Gly Phe Val Ala Thr Val Thr Leu Ile Pro	20	25	30
Ala Phe Arg Ser His Phe Ile Ala Ala Arg Leu Cys Gly Gln Asp Leu	35	40	45
Asn Lys Leu Ser Arg Gln Gln Ile Pro Glu Ser Gln Gly Val Ile Ser	50	55	60
Gly Ala Val Phe Leu Ile Ile Leu Phe Cys Phe Ile Pro Phe Pro Phe	65	70	75
Leu Asn Cys Phe Val Glu Glu Gln Cys Lys Ala Phe Pro His His Glu	85	90	95
Phe Val Ala Leu Ile Gly Ala Leu Leu Ala Ile Cys Cys Met Ile Phe	100	105	110
Leu Gly Phe Ala Asp Asp Val Leu Asn Leu Arg Trp Arg His Lys Leu	115	120	125
Leu Leu Pro Thr Ala Ala Ser Leu Pro Leu Leu Met Val Tyr Phe Thr	130	135	140
Asn Phe Gly Asn Thr Thr Ile Val Val Pro Lys Pro Phe Arg Trp Ile	145	150	155
Leu Gly Leu His Leu Asp Leu Gly Ile Leu Tyr Tyr Val Tyr Met Gly	165	170	175
Leu Leu Ala Val Phe Cys Thr Asn Ala Ile Asn Ile Leu Ala Gly Ile	180	185	190
Asn Gly Leu Glu Ala Gly Gln Ser Leu Val Ile Ser Ala Ser Ile Ile	195	200	205
Val Phe Asn Leu Val Glu Leu Glu Gly Asp Tyr Arg Asp Asp His Val	210	215	220
Phe Ser Leu Tyr Phe Met Met Pro Phe Phe Phe Thr Thr Leu Gly Leu	225	230	235
			240

Leu Tyr His Asn Trp Tyr Pro Ser Gln Val Phe Val Gly Asp Thr Phe
245 250 255

Cys Tyr Phe Ala Gly Met Thr Phe Ala Val Val Gly Ile Leu Gly His
260 265 270

Phe Ser Lys Thr Met Leu Leu Phe Phe Met Pro Gln Val Phe Asn Phe
275 280 285

Leu Tyr Ser Leu Pro Gln Leu Phe Gln Ile Ile Pro Cys Pro Arg His
290 295 300

Arg Met Pro Arg Leu Asn Thr Lys Thr Gly Lys Leu Glu Met Ser Tyr
305 310 315 320

Ser Lys Phe Lys Thr Lys Ser Leu Ser Phe Leu Gly Thr Phe Ile Leu
325 330 335

Lys Val Ala Glu Ser Leu Arg Leu Val Thr Val His Arg Gly Glu Ser
340 345 350

Glu Asp Gly Ala Phe Thr Glu Cys Asn Asn Met Thr Leu Ile Asn Leu
355 360 365

Leu Leu Lys Val Phe Gly Pro Thr His Glu Arg Asn Leu Thr Leu Phe
370 375 380

Leu Leu Leu Leu Gln Val Leu Ser Ser Ala Val Thr Phe Ser Ile Arg
385 390 395 400

Tyr Gln Leu Val Arg Leu Phe Tyr Asp Val
405 410

<210> 10
<211> 410
<212> PRT
<213> Mus musculus

<400> 10

Met Trp Ala Phe Pro Glu Leu Pro Leu Pro Leu Pro Leu Val Asn
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Leu Ile Gly Ser Leu Leu Gly Phe Val Ala Thr Val Thr Leu Ile Pro
20 25 30

Ala Phe Arg Ser His Phe Ile Ala Ala Arg Leu Cys Gly Gln Asp Leu
 35 40 45

Asn Lys Leu Ser Gln Gln Gln Ile Pro Glu Ser Gln Gly Val Ile Ser
 50 55 60

Gly Ala Val Phe Leu Ile Ile Leu Phe Cys Phe Ile Pro Phe Pro Phe
 65 70 75 80

Leu Asn Cys Phe Val Glu Glu Gln Cys Lys Ala Phe Pro His His Glu
 85 90 95

Phe Val Ala Leu Ile Gly Ala Leu Leu Ala Ile Cys Cys Met Ile Phe
 100 105 110

Leu Gly Phe Ala Asp Asp Val Leu Asn Leu Arg Trp Arg His Lys Leu
 115 120 125

Leu Leu Pro Thr Ala Ala Ser Leu Pro Leu Leu Met Val Tyr Phe Thr
 130 135 140

Asn Phe Gly Asn Thr Thr Ile Val Val Pro Lys Pro Phe Arg Trp Ile
 145 150 155 160

Leu Gly Leu His Leu Asp Leu Gly Ile Leu Tyr Tyr Val Tyr Met Gly
 165 170 175

Leu Leu Ala Val Phe Cys Thr Asn Ala Ile Asn Ile Leu Ala Gly Ile
 180 185 190

Asn Gly Leu Glu Ala Gly Gln Ser Leu Val Ile Ser Ala Ser Ile Ile
 195 200 205

Val Phe Asn Leu Val Glu Leu Glu Gly Asp Tyr Arg Asp Asp His Ile
 210 215 220

Phe Ser Leu Tyr Phe Met Ile Pro Phe Phe Phe Thr Thr Leu Gly Leu
 225 230 235 240

Leu Tyr His Asn Trp Tyr Pro Ser Arg Val Phe Val Gly Asp Thr Phe
 245 250 255

Cys Tyr Phe Ala Gly Met Thr Phe Ala Val Val Gly Ile Leu Gly His
260 265 270

Phe Ser Lys Thr Met Leu Leu Phe Phe Met Pro Gln Val Phe Asn Phe
275 280 285

Leu Tyr Ser Leu Pro Gln Leu Phe His Ile Ile Pro Cys Pro Arg His
290 295 300

Arg Met Pro Arg Leu Asn Ala Lys Thr Gly Lys Leu Glu Met Ser Tyr
305 310 315 320

Ser Lys Phe Lys Thr Lys Asn Leu Ser Phe Leu Gly Thr Phe Ile Leu
325 330 335

Lys Val Ala Glu Asn Leu Arg Leu Val Thr Val His Gln Gly Glu Ser
340 345 350

Glu Asp Gly Ala Phe Thr Glu Cys Asn Asn Met Thr Leu Ile Asn Leu
355 360 365

Leu Leu Lys Val Phe Gly Pro Ile His Glu Arg Asn Leu Thr Leu Leu
370 375 380

Leu Leu Leu Leu Gln Val Leu Ser Ser Ala Ala Thr Phe Ser Ile Arg
385 390 395 400

Tyr Gln Leu Val Arg Leu Phe Tyr Asp Val
405 410

<210> 11
<211> 1920
<212> DNA
<213> Mus musculus

<400> 11
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<210> 12
 <211> 2150
 <212> DNA
 <213> Homo sapiens

<400> 12
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<210> 13
 <211> 1840
 <212> DNA
 <213> Rattus norvegicus

<400> 13	
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<210> 14
 <211> 5424
 <212> DNA
 <213> Macaca mulatta

<400> 14	
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gccacagtca cctcatccc agccttccgg ggccacttca ttgctgcgcg cctctgtggt	420
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