

SEQUENCE LISTING

<110> Jain, Arjun

<120> ENDOTHELIN-1 RECEPTOR BASED ENDOTHELIN-1 SPONGE

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<141> 2016-01-22

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<170> PatentIn version 3.5

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Phe	Thr	Thr	Phe	Arg	Gly	Thr	Glu	Leu	Ser	Phe	Leu	Val	Thr	Thr	His
			20					25					30		

Gln	Pro	Thr	Asn	Leu	Val	Leu	Pro	Ser	Asn	Gly	Ser	Met	His	Asn	Tyr
		35					40					45			

Cys	Pro	Gln	Gln	Thr	Lys	Ile	Thr	Ser	Ala	Phe	Lys	Lys	Leu	Leu	Ala
	50					55					60				

Gly Arg Trp Pro Phe Asp His Asn Asp Phe Gly Val Phe Leu Cys Pro
 65 70 75 80

Phe Glu Tyr Arg Gly Glu Gln His Lys Thr Cys Met Leu Asn Ala Thr
 85 90 95

Ser Lys Phe Met Glu Phe Tyr Gln Asp Val Lys Asp Thr Cys Glu Met
 100 105 110

Leu Asn Arg Arg Asn Gly Ser Leu Arg Ile Ala Leu Ser Glu His Leu
 115 120 125

Lys Gln Arg Arg Glu Val Ala Lys Thr Val Phe Cys Val Tyr Asn Glu
 130 135 140

Met Asp Lys Asn Arg Cys Glu Leu Leu Ser Phe Leu Ser Lys Lys Phe
 145 150 155 160

Lys Asn Cys Phe Gln Ser Cys Leu Cys Cys Cys Cys Tyr Gln Ser Lys
 165 170 175

Ser Leu Met Thr Ser Val Pro Met Asn Gly Thr Ser Ile Gln Trp Lys
 180 185 190

Asn His Asp Gln Asn Asn His Asn Thr Asp Arg Ser Ser His Lys Asp

195

200

205

Ser Met Asn Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
 210 215 220

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 225 230 235 240

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 245 250 255

Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
 260 265 270

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
 275 280 285

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 290 295 300

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 305 310 315 320

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 325 330 335

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 340 345 350

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 355 360 365

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 370 375 380

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 385 390 395 400

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

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Phe Thr Thr Phe Arg Gly Thr Glu Leu Ser Phe Leu Val Thr Thr His
 20 25 30

Gln Pro Thr Asn Leu Val Leu Pro Ser Asn Gly Ser Met His Asn Tyr
 35 40 45

Cys Pro Gln Gln Thr Lys Ile Thr Ser Ala Phe Lys Lys Leu Leu Ala
 50 55 60

Gly Arg Trp Pro Phe Asp His Asn Asp Phe Gly Val Phe Leu Cys Pro
 65 70 75 80

Phe Glu Tyr Arg Gly Glu Gln His Lys Thr Cys Met Leu Asn Ala Thr
 85 90 95

Ser Lys Phe Met Glu Phe Tyr Gln Asp Val Lys Asp Ser Glu His Leu
 100 105 110

Lys Gln Arg Arg Glu Val Ala Lys Thr Val Phe Cys Val Tyr Asn Glu
 115 120 125

Met Asp Lys Asn Arg Cys Glu Leu Leu Ser Phe Leu Ser Lys Lys Phe
 130 135 140

Lys	Asn	Cys	Phe	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu
145					150					155					160

Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp
				165					170					175	

Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp
			180					185					190		

Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly
		195					200					205			

Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn
	210					215					220				

Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp
225					230					235					240

Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro
				245					250					255	

Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu
			260					265					270		

Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn
		275					280					285			

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
 290 295 300

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
 305 310 315 320

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
 325 330 335

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
 340 345 350

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
 355 360 365

Ser Leu Ser Pro Gly Lys
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1				5					10					15	

Phe	Thr	Thr	Phe	Arg	Gly	Thr	Glu	Leu	Ser	Phe	Leu	Val	Thr	Thr	His
			20					25					30		

Gln	Pro	Thr	Asn	Leu	Val	Leu	Pro	Ser	Asn	Gly	Ser	Met	His	Asn	Tyr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

35

40

45

Cys Pro Gln Gln Thr Lys Ile Thr Ser Ala Phe Lys Lys Leu Leu Ala
 50 55 60

Gly Arg Trp Pro Phe Asp His Asn Asp Phe Gly Val Phe Leu Cys Pro
 65 70 75 80

Phe Glu Tyr Arg Gly Glu Gln His Lys Thr Cys Met Leu Asn Ala Thr
 85 90 95

Ser Lys Phe Met Glu Phe Tyr Gln Asp Val Lys Asp Thr Cys Glu Met
 100 105 110

Leu Asn Arg Arg Asn Gly Ser Leu Arg Ile Ala Leu Ser Glu His Leu
 115 120 125

Lys Gln Arg Arg Glu Val Ala Lys Thr Val Phe Cys Ser Lys Lys Phe
 130 135 140

Lys Asn Cys Phe Gln Ser Cys Leu Cys Cys Cys Cys Tyr Gln Ser Lys
 145 150 155 160

Ser Leu Met Thr Ser Val Pro Met Asn Gly Thr Ser Ile Gln Trp Lys
 165 170 175

Asn	His	Asp	Gln	Asn	Asn	His	Asn	Thr	Asp	Arg	Ser	Ser	His	Lys	Asp
			180					185					190		

Ser	Met	Asn	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu
		195					200					205			

Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr
	210					215					220				

Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val
225					230					235					240

Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val
				245					250					255	

Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	Ser
			260					265					270		

Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu
	275						280					285			

Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala
	290					295					300				

Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro
305					310					315					320

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 325 330 335

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 340 345 350

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 355 360 365

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 370 375 380

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 385 390 395 400

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
 405 410 415

Leu Ser Pro Gly Lys
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Asp	Asn	Pro	Glu	Arg	Tyr	Ser	Thr	Asn	Leu	Ser	Asn	His	Val	Asp	Asp
1				5					10					15	

Phe Thr Thr Phe Arg Gly Thr Glu Leu Ser Phe Leu Val Thr Thr His

15

20

25

30

Gln Pro Thr Asn Leu Val Leu Pro Ser Asn Gly Ser Met His Asn Tyr
35 40 45

Cys Pro Gln Gln Thr Lys Ile Thr Ser Ala Phe Lys Lys Leu Leu Ala
50 55 60

Gly Arg Trp Pro Phe Asp His Asn Asp Phe Gly Val Phe Leu Cys Pro
65 70 75 80

Phe Glu Tyr Arg Gly Glu Gln His Lys Thr Cys Met Leu Asn Ala Thr
85 90 95

Ser Lys Phe Met Glu Phe Tyr Gln Asp Val Lys Asp Ser Glu His Leu
100 105 110

Lys Gln Arg Arg Glu Val Ala Lys Thr Val Phe Cys Ser Lys Lys Phe
115 120 125

Lys Asn Cys Phe Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
130 135 140

Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
145 150 155 160

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
 165 170 175

Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
 180 185 190

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn
 195 200 205

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
 210 215 220

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro
 225 230 235 240

Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
 245 250 255

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
 260 265 270

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
 275 280 285

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
 290 295 300

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
 305 310 315 320

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
 325 330 335

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
 340 345 350

Ser Leu Ser Pro Gly Lys
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1				5					10					15	

Phe	Thr	Thr	Phe	Arg	Gly	Thr	Glu	Leu	Ser	Phe	Leu	Val	Thr	Thr	His
			20					25					30		

Gln	Pro	Thr	Asn	Leu	Val	Leu	Pro	Ser	Asn	Gly	Ser	Met	His	Asn	Tyr
		35					40					45			

Cys	Pro	Gln	Gln	Thr	Lys	Ile	Thr	Ser	Ala	Phe	Lys	Lys	Leu	Leu	Ala
	50					55					60				

Gly	Arg	Trp	Pro	Phe	Asp	His	Asn	Asp	Phe	Gly	Val	Phe	Leu	Cys	Thr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
 210 215 220

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
 225 230 235 240

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
 245 250 255

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 260 265 270

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 275 280 285

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 290 295 300

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
 305 310 315 320

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
 325 330 335

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
 340 345 350

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
 355 360 365

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
 370 375 380

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
 385 390 395 400

Ser Leu Ser Leu Ser Pro Gly Lys
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Asp	Asn	Pro	Glu	Arg	Tyr	Ser	Thr	Asn	Leu	Ser	Asn	His	Val	Asp	Asp
1				5					10					15	

Phe	Thr	Thr	Phe	Arg	Gly	Thr	Glu	Leu	Ser	Phe	Leu	Val	Thr	Thr	His
			20					25					30		

Gln	Pro	Thr	Asn	Leu	Val	Leu	Pro	Ser	Asn	Gly	Ser	Met	His	Asn	Tyr
		35					40					45			

Cys	Pro	Gln	Gln	Thr	Lys	Ile	Thr	Ser	Ala	Phe	Lys	Lys	Leu	Leu	Ala
	50					55					60				

Gly	Arg	Trp	Pro	Phe	Asp	His	Asn	Asp	Phe	Gly	Val	Phe	Leu	Cys	Ser
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
 210 215 220

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
 225 230 235 240

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
 245 250 255

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
 260 265 270

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
 275 280 285

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
 290 295 300

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
 305 310 315 320

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
 325 330 335

Lys Ser Leu Ser Leu Ser Pro Gly Lys
 340 345

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Pro	Ile	Glu	Ile	Lys	Glu	Thr	Phe	Lys	Tyr	Ile	Asn	Thr	Val	Val	Ser
1				5					10					15	

Cys	Leu	Val	Phe	Val	Leu	Gly	Ile	Ile	Gly	Asn	Ser	Thr	Leu	Leu	Arg
			20					25					30		

Ile	Ile	Tyr	Lys	Asn	Lys	Cys	Ser	Lys	Arg	Phe	Lys	Asn	Cys	Phe	Lys
		35					40					45			

Ser	Cys	Leu	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

50

55

60

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
 65 70 75 80

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
 85 90 95

Ser His Glu Asp Pro Glu Val Lys Phe Asp Trp Tyr Val Asp Gly Val
 100 105 110

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
 115 120 125

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
 130 135 140

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
 145 150 155 160

Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
 165 170 175

Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
 180 185 190

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
 195 200 205

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
 210 215 220

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
 225 230 235 240

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
 245 250 255

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
 260 265 270

Leu Ser Pro Gly Lys
 275

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Pro	Ile	Glu	Ile	Lys	Glu	Thr	Phe	Lys	Tyr	Ile	Asn	Thr	Val	Val	Ser
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Cys	Leu	Val	Phe	Val	Leu	Gly	Ile	Ile	Gly	Asn	Ser	Thr	Leu	Leu	Arg
			20					25					30		

Ile	Ile	Tyr	Lys	Asn	Lys	Cys	Ile	Leu	Ile	Ala	Ser	Leu	Ala	Leu	Gly
		35				40						45			

Asp	Leu	Leu	His	Ile	Val	Ile	Asp	Ile	Pro	Ile	Asn	Val	Tyr	Lys	Leu
	50					55					60				

Leu	Ala	Glu	Asp	Trp	Pro	Phe	Gly	Ala	Glu	Met	Cys	Lys	Leu	Val	Pro
65					70					75				80	

Phe	Ile	Gln	Lys	Ala	Ser	Val	Gly	Ile	Thr	Val	Leu	Ser	Leu	Cys	Ala
				85					90					95	

Leu	Ser	Ile	Ser	Lys	Arg	Phe	Lys	Asn	Cys	Phe	Lys	Ser	Cys	Leu	Lys
				100				105					110		

Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu	Leu	Gly	Gly	Pro
				115				120					125		

Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser
							130		135			140			

Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His	Glu	Asp
145						150				155					160

Pro	Glu	Val	Lys	Phe	Asp	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn
				165					170					175	

Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	Ser	Thr	Tyr	Arg	Val
				180				185					190		

Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu
				195				200				205			

Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys
				210			215				220				

Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
 225 230 235 240

Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr
 245 250 255

Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
 260 265 270

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
 275 280 285

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
 290 295 300

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
 305 310 315 320

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
 325 330 335

Lys

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<211> 265

<212> PRT

<213> Artificial Sequence

<220>

<223> ETBR fusion polypeptide

<220>

<221> MISC_FEATURE

<222> (39)..(40)

<223> Linker/connecting sequence (if any)

<400> 9

Pro	Ile	Glu	Ile	Lys	Glu	Thr	Phe	Lys	Tyr	Ile	Asn	Thr	Val	Val	Ser
1				5					10					15	

Cys	Leu	Val	Phe	Val	Leu	Gly	Ile	Ile	Gly	Asn	Ser	Thr	Leu	Leu	Arg
			20					25					30		

Ile	Ile	Tyr	Lys	Asn	Lys	Cys	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro
		35					40					45			

Ala	Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys
	50					55					60				

Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val
65					70					75					80

Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asp	Trp	Tyr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

85

90

95

Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu
			100					105					110		

Gln	Tyr	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His
		115					120					125			

Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys
	130					135					140				

Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln
145					150					155					160

Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu	Glu	Met
				165					170					175	

Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro
			180					185					190		

Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn
		195						200				205			

Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu
	210					215					220				

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
 225 230 235 240

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
 245 250 255

Lys Ser Leu Ser Leu Ser Pro Gly Lys
 260 265

<210> 10

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Amino acids of ECL1

<400> 10

Lys Leu Leu Ala Gly
 1 5

<210> 11

<211> 60

<212> PRT

<213> Artificial Sequence

<220>

<223> ETA receptor ligand binding domain N terminus

<400> 11

Asp Asn Pro Glu Arg Tyr Ser Thr Asn Leu Ser Asn His Val Asp Asp
 1 5 10 15

Phe Thr Thr Phe Arg Gly Thr Glu Leu Ser Phe Leu Val Thr Thr His
 20 25 30

Gln Pro Thr Asn Leu Val Leu Pro Ser Asn Gly Ser Met His Asn Tyr
 35 40 45

Cys Pro Gln Gln Thr Lys Ile Thr Ser Ala Phe Lys
 50 55 60

<210> 12

<211> 19

<212> PRT

<213> Artificial Sequence

<220>

<223> ETA receptor ligand binding domain extracellular loop 1

<400> 12

Lys Leu Leu Ala Gly Arg Trp Pro Phe Asp His Asn Asp Phe Gly Val
 1 5 10 15

Phe Leu Cys

<210> 13

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> ETA receptor ligand binding domain extracellular loop 2

<400> 13

Pro	Phe	Glu	Tyr	Arg	Gly	Glu	Gln	His	Lys	Thr	Cys	Met	Leu	Asn	Ala
1				5					10					15	

Thr	Ser	Lys	Phe	Met	Glu	Phe	Tyr	Gln	Asp	Val	Lys	Asp
			20					25				

<210> 14

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> ETA receptor ligand binding domain extracellular loop 3

<400> 14

Val	Tyr	Asn	Glu	Met	Asp	Lys	Asn	Arg	Cys	Glu	Leu	Leu	Ser	Phe	Leu
1				5					10					15	

<210> 15

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> ETA receptor ligand binding domain intracellular loop 3

<400> 15

Thr	Cys	Glu	Met	Leu	Asn	Arg	Arg	Asn	Gly	Ser	Leu	Arg	Ile	Ala	Leu
1				5					10					15	

Ser	Glu	His	Leu	Lys	Gln	Arg	Arg	Glu	Val	Ala	Lys	Thr	Val	Phe	Cys
			20					25					30		

<210> 16

<211> 55

<212> PRT

<213> Artificial Sequence

<220>

<223> ETA receptor ligand binding domain C terminus

<400> 16

Ser	Lys	Lys	Phe	Lys	Asn	Cys	Phe	Gln	Ser	Cys	Leu	Cys	Cys	Cys	Cys
1				5					10					15	

Tyr	Gln	Ser	Lys	Ser	Leu	Met	Thr	Ser	Val	Pro	Met	Asn	Gly	Thr	Ser
			20					25					30		

Ile	Gln	Trp	Lys	Asn	His	Asp	Gln	Asn	Asn	His	Asn	Thr	Asp	Arg	Ser
			35					40					45		

Ser His Lys Asp Ser Met Asn
 50 55

<210> 17

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> ETB receptor ligand binding domain N terminus +
 intracellular
 loop 1

<400> 17

Pro Ile Glu Ile Lys Glu Thr Phe Lys Tyr Ile Asn Thr Val Val Ser
 1 5 10 15

Cys Leu Val Phe Val Leu Gly Ile Ile Gly Asn Ser Thr Leu Leu Arg
 20 25 30

Ile Ile Tyr Lys Asn Lys Cys
 35

<210> 18

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> ETB receptor ligand binding domain C terminus

<400> 18

Ser Lys Arg Phe Lys Asn Cys Phe Lys Ser Cys Leu

1 5 10

<210> 19

<211> 60

<212> PRT

<213> Artificial Sequence

<220>

<223> ETB receptor ligand binding domain transmembrane domains
2 + 3

<400> 19

Ile Leu Ile Ala Ser Leu Ala Leu Gly Asp Leu Leu His Ile Val Ile

1 5 10 15

Asp Ile Pro Ile Asn Val Tyr Lys Leu Leu Ala Glu Asp Trp Pro Phe

20 25 30

Gly Ala Glu Met Cys Lys Leu Val Pro Phe Ile Gln Lys Ala Ser Val

35 40 45

Gly Ile Thr Val Leu Ser Leu Cys Ala Leu Ser Ile

50 55 60