

SEQUENCE LISTING

<110> Agency for Science, Technology amd Research
 <120> Dermato pontin as a therapeutic for metabolic disorders
 <130> 9869SG3639
 <160> 12
 <170> PatentIn version 3.5
 <210> 1
 <211> 201
 <212> PRT
 <213> artificial
 <220>
 <223> Recombinant dermatopontin (human)
 <400> 1

Met	Asp	Leu	Ser	Leu	Leu	Trp	Val	Leu	Leu	Pro	Leu	Val	Thr	Met	Ala
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Trp	Gly	Gln	Tyr	Gly	Asp	Tyr	Gly	Tyr	Pro	Tyr	Gln	Gln	Tyr	His	Asp
		20					25					30			

Tyr	Ser	Asp	Asp	Gly	Trp	Val	Asn	Leu	Asn	Arg	Gln	Gly	Phe	Ser	Tyr
		35				40					45				

Gln	Cys	Pro	Gln	Gly	Gln	Val	Ile	Val	Ala	Val	Arg	Ser	Ile	Phe	Ser
	50					55					60				

Lys	Lys	Glu	Gly	Ser	Asp	Arg	Gln	Trp	Asn	Tyr	Ala	Cys	Met	Pro	Thr
65					70				75					80	

Pro	Gln	Ser	Leu	Gly	Glu	Pro	Thr	Glu	Cys	Trp	Trp	Glu	Glu	Ile	Asn
				85					90					95	

Arg	Ala	Gly	Met	Glu	Trp	Tyr	Gln	Thr	Cys	Ser	Asn	Asn	Gly	Leu	Val
			100					105					110		

Ala Gly Phe Gln Ser Arg Tyr Phe Glu Ser Val Leu Asp Arg Glu Trp
115 120 125

Gln Phe Tyr Cys Cys Arg Tyr Ser Lys Arg Cys Pro Tyr Ser Cys Trp
130 135 140

Leu Thr Thr Glu Tyr Pro Gly His Tyr Gly Glu Glu Met Asp Met Ile
145 150 155 160

Ser Tyr Asn Tyr Asp Tyr Tyr Ile Arg Gly Ala Thr Thr Thr Phe Ser
165 170 175

Ala Val Glu Arg Asp Arg Gln Trp Lys Phe Ile Met Cys Arg Met Thr
180 185 190

Glu Tyr Asp Cys Glu Phe Ala Asn Val
195 200

<210> 2
<211> 201
<212> PRT
<213> artificial

<220>
<223> Recombinant dermatopontin (bovine)

<400> 2

Met Asp Leu Thr Leu Leu Trp Val Leu Leu Pro Leu Val Thr Val Ala
1 5 10 15

Trp Gly Gln Tyr Gly Asp Tyr Gly Tyr Ser Tyr His Gln Tyr His Asp
20 25 30

Tyr Ser Asp Asp Gly Trp Val Asn Leu Asn Arg Gln Gly Phe Ser Tyr
35 40 45

Gln Cys Pro His Gly Gln Val Val Val Ala Val Arg Ser Ile Phe Asn
50 55 60

Lys Lys Glu Gly Ser Asp Arg Gln Trp Asn Tyr Ala Cys Met Pro Thr
65 70 75 80

Pro Gln Ser Leu Gly Glu Pro Thr Glu Cys Trp Trp Glu Glu Ile Asn
85 90 95

Arg Ala Gly Met Glu Trp Tyr Gln Thr Cys Ser Asn Asn Gly Leu Val
100 105 110

Ala Gly Phe Gln Ser Arg Tyr Phe Glu Ser Val Leu Asp Arg Glu Trp
115 120 125

Gln Phe Tyr Cys Cys Arg Tyr Ser Lys Arg Cys Pro Tyr Ser Cys Trp
130 135 140

Leu Thr Thr Glu Tyr Pro Gly His Tyr Gly Glu Glu Met Asp Met Ile
145 150 155 160

Ser Tyr Asn Tyr Asp Tyr Tyr Met Arg Gly Ala Thr Thr Thr Phe Ser
165 170 175

Ala Val Glu Arg Asp Arg Gln Trp Lys Phe Ile Met Cys Arg Met Thr
180 185 190

Asp Tyr Asp Cys Glu Phe Ala Asn Val
195 200

<210> 3
<211> 201
<212> PRT
<213> artificial

<220>
<223> Recombinant dermatopontin (murine)

<400> 3

Met Asp Leu Thr Leu Leu Trp Val Leu Leu Pro Leu Val Thr Thr Ala
1 5 10 15

Trp Gly Gln Tyr Gly Gly Tyr Gly Tyr Pro Tyr Gln Gln Tyr Gln Asp
20 25 30

Tyr Gly Asp Asp Gly Trp Val Asn Leu Asn Arg Gln Gly Phe Ser Tyr
35 40 45

Gln Cys Pro His Gly Gln Val Val Val Ala Val Arg Ser Ile Phe Ser
50 55 60

Lys Lys Glu Gly Ser Asp Arg Gln Trp Asn Tyr Ala Cys Met Pro Thr
65 70 75 80

Pro Gln Ser Leu Gly Glu Pro Thr Glu Cys Trp Trp Glu Glu Ile Asn
85 90 95

Arg Ala Gly Met Glu Trp Tyr Gln Lys Cys Ser Asn Asn Gly Leu Val
100 105 110

Ala Gly Phe Gln Ser Arg Tyr Phe Glu Ser Val Leu Asp Arg Glu Trp
115 120 125

Gln Phe Tyr Cys Cys Arg Tyr Ser Lys Arg Cys Pro Tyr Ser Cys Trp
130 135 140

Met Thr Thr Glu Tyr Pro Ser His Tyr Gly Glu Asp Met Asp Met Ile
145 150 155 160

Ser Tyr Asp Tyr Asp Phe Tyr Met Arg Gly Ala Thr Thr Thr Phe Ser
165 170 175

Ala Val Glu Arg Asp Arg Gln Trp Lys Phe Ile Met Cys Arg Met Thr
180 185 190

Asp Tyr Asp Cys Glu Phe Glu Asn Val
195 200

<210> 4

<211> 183

<212> PRT
<213> artificial

<220>
<223> Recombinant dermatopontin (porcine)

<400> 4

Gln Tyr Gly Asp Tyr Gly Tyr Pro Tyr Gln Gln Tyr His Asp Tyr Ser
1 5 10 15

Asp Asp Gly Trp Val Asn Leu Asn Arg Gln Gly Phe Ser Tyr Gln Cys
20 25 30

Pro His Gly Gln Val Val Val Ala Val Arg Ser Ile Phe Asn Lys Lys
35 40 45

Glu Gly Ser Asp Arg Gln Trp Asn Tyr Ala Cys Met Pro Thr Pro Gln
50 55 60

Ser Leu Gly Glu Pro Ser Glu Cys Trp Trp Glu Glu Ile Asn Arg Ala
65 70 75 80

Gly Met Glu Trp Tyr Gln Thr Cys Ser Asn Asn Gly Leu Val Ala Gly
85 90 95

Phe Gln Ser Arg Tyr Phe Glu Ser Val Leu Asp Arg Glu Trp Gln Phe
100 105 110

Tyr Cys Cys Arg Tyr Ser Lys Arg Cys Pro Tyr Ser Cys Trp Met Thr
115 120 125

Thr Glu Tyr Pro Gly His Tyr Gly Glu Glu Met Asp Met Ile Ser Tyr
130 135 140

Asn Tyr Asp Tyr Tyr Met Arg Gly Ala Thr Thr Thr Phe Ser Ala Val
145 150 155 160

Glu Arg Asp Arg Gln Trp Lys Phe Ile Met Cys Arg Met Thr Asp Tyr
165 170 175

Asp Cys Glu Phe Ala Asn Val
180

<210> 5
<211> 606
<212> DNA
<213> artificial

<220>
<223> Human dermatopontin (DPT) nucleic acid sequence used to generate recombinant DPT constructs

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ttgaaccggc aaggcttcag ctaccagtgt cccagggggc aggtgatagt ggccgtgagg 180
agcatcttca gcaagaagga aggttctgac agacaatgga actacgcctg catgcccacg 240
ccacagagcc tcggggaacc cacggagtgc tgggtgggagg agatcaacag ggctggcatg 300
gaatgggtacc agacgtgctc caacaatggg ctggtggcag gattccagag ccgctacttc 360
gagtcagtgc tggatcggga gtggcagttt tactgttgct gctacagcaa gaggtgcca 420
tattcctgct ggctaacaat agaatatcca ggtcactatg gtgaggaaat ggacatgatt 480
tcctacaatt atgattacta tatccgagga gcaacaacca ctttctctgc agtggaaagg 540
gatcgccagt ggaagttcat aatgtgccgg atgactgaat acgactgtga atttgcaa 600
gttttag 606

<210> 6
<211> 18
<212> PRT
<213> artificial

<220>
<223> Conserved N-terminal secretory sequence (human)

<400> 6

Met Asp Leu Ser Leu Leu Trp Val Leu Leu Pro Leu Val Thr Met Ala

1 5 10 15

Trp Gly

<210> 7

<211> 18

<212> PRT

<213> artificial

<220>

<223> Conserved N-terminal secretory sequence (bovine)

<400> 7

Met Asp Leu Thr Leu Leu Trp Val Leu Leu Pro Leu Val Thr Val Ala
1 5 10 15

Trp Gly

<210> 8

<211> 18

<212> PRT

<213> artificial

<220>

<223> Conserved N-terminal secretory sequence (murine)

<400> 8

Met Asp Leu Thr Leu Leu Trp Val Leu Leu Pro Leu Val Thr Thr Ala
1 5 10 15

Trp Gly

<210> 9

<211> 20

<212> PRT

<213> artificial

<220>

<223> Nuclear localisation sequence of nucleoplasmin

<400> 9

Ala Val Lys Arg Pro Ala Ala Thr Lys Lys Ala Gly Gln Ala Lys Lys
1 5 10 15

Lys Lys Leu Asp
20

<210> 10
<211> 9
<212> PRT
<213> artificial

<220>
<223> Nuclear localisation sequence of c-myc

<400> 10

Pro Ala Ala Lys Arg Val Lys Leu Asp
1 5

<210> 11
<211> 624
<212> DNA
<213> artificial

<220>
<223> His-tagged recombinant dermatopontin (rDPT-His)

<400> 11
atggacctca gtcttctctg ggtacttctg cccctagtca ccatggcctg gggccagtat 60
ggcgattatg gatacccata ccagcagtat catgactaca gcgatgatgg gtgggtgaat 120
ttgaaccggc aaggcttcag ctaccagtgt cccagggggc aggtgatagt ggccgtgagg 180
agcatcttca gcaagaagga aggttctgac agacaatgga actacgcctg catgcccacg 240
ccacagagcc tcggggaacc cacggagtgc tgggtgggagg agatcaacag ggctggcatg 300
gaatgggtacc agacgtgctc caacaatggg ctggtggcag gattccagag ccgctacttc 360
gagtcagtgc tggatcggga gtggcagttt tactgttgtc gctacagcaa gaggtgccca 420
tattcctgct ggctaacaat agaatatcca ggtcactatg gtgaggaaat ggacatgatt 480

tcctacaatt atgattacta tatccgagga gcaacaacca ctttctctgc agtggaaagg	540
gatcgccagt ggaagttcat aatgtgccgg atgactgaat acgactgtga atttgcaa	600
attgcaa	624

<210> 12
 <211> 207
 <212> PRT
 <213> artificial

<220>
 <223> His-tagged recombinant dermatopontin (rDPT-His)

<400> 12

Met	Asp	Leu	Ser	Leu	Leu	Trp	Val	Leu	Leu	Pro	Leu	Val	Thr	Met	Ala
1				5					10					15	

Trp	Gly	Gln	Tyr	Gly	Asp	Tyr	Gly	Tyr	Pro	Tyr	Gln	Gln	Tyr	His	Asp
		20					25					30			

Tyr	Ser	Asp	Asp	Gly	Trp	Val	Asn	Leu	Asn	Arg	Gln	Gly	Phe	Ser	Tyr
		35					40					45			

Gln	Cys	Pro	Gln	Gly	Gln	Val	Ile	Val	Ala	Val	Arg	Ser	Ile	Phe	Ser
	50					55					60				

Lys	Lys	Glu	Gly	Ser	Asp	Arg	Gln	Trp	Asn	Tyr	Ala	Cys	Met	Pro	Thr
65					70				75					80	

Pro	Gln	Ser	Leu	Gly	Glu	Pro	Thr	Glu	Cys	Trp	Trp	Glu	Glu	Ile	Asn
			85						90					95	

Arg	Ala	Gly	Met	Glu	Trp	Tyr	Gln	Thr	Cys	Ser	Asn	Asn	Gly	Leu	Val
		100					105						110		

Ala	Gly	Phe	Gln	Ser	Arg	Tyr	Phe	Glu	Ser	Val	Leu	Asp	Arg	Glu	Trp
		115					120					125			

Gln	Phe	Tyr	Cys	Cys	Arg	Tyr	Ser	Lys	Arg	Cys	Pro	Tyr	Ser	Cys	Trp
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130

135

140

Leu Thr Thr Glu Tyr Pro Gly His Tyr Gly Glu Glu Met Asp Met Ile
145 150 155 160

Ser Tyr Asn Tyr Asp Tyr Tyr Ile Arg Gly Ala Thr Thr Thr Phe Ser
165 170 175

Ala Val Glu Arg Asp Arg Gln Trp Lys Phe Ile Met Cys Arg Met Thr
180 185 190

Glu Tyr Asp Cys Glu Phe Ala Asn Val His His His His His His
195 200 205