

9869SG3639-seq1-000001
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

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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

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<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
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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>

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<223> Recombinant dermatopontin (porcine)

<400> 4

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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
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<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

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gaatggtacc agacgtgctc caacaatggg ctggtggcag gattccagag ccgctacttc 360
gagtcagtgc tggatcggga gtggcagttt tactgttgtc gctacagcaa gaggtgccca 420
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<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
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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

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<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
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Lys Lys Leu Asp
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<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
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<210> 11
 <211> 624
 <212> DNA
 <213> artificial

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

<400> 11
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 ttgaaccggc aaggcttcag ctaccagtgt cccaggggc aggtgatagt ggccgtgagg 180
 agcatcttca gcaagaagga aggttctgac agacaatgga actacgcctg catgcccacg 240
 ccacagagcc tcggggaacc cacggagtgc tgggtgggagg agatcaacag ggctggcatg 300
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<210> 12

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<211> 207
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<213> artificial

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

<400> 12

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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
          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

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