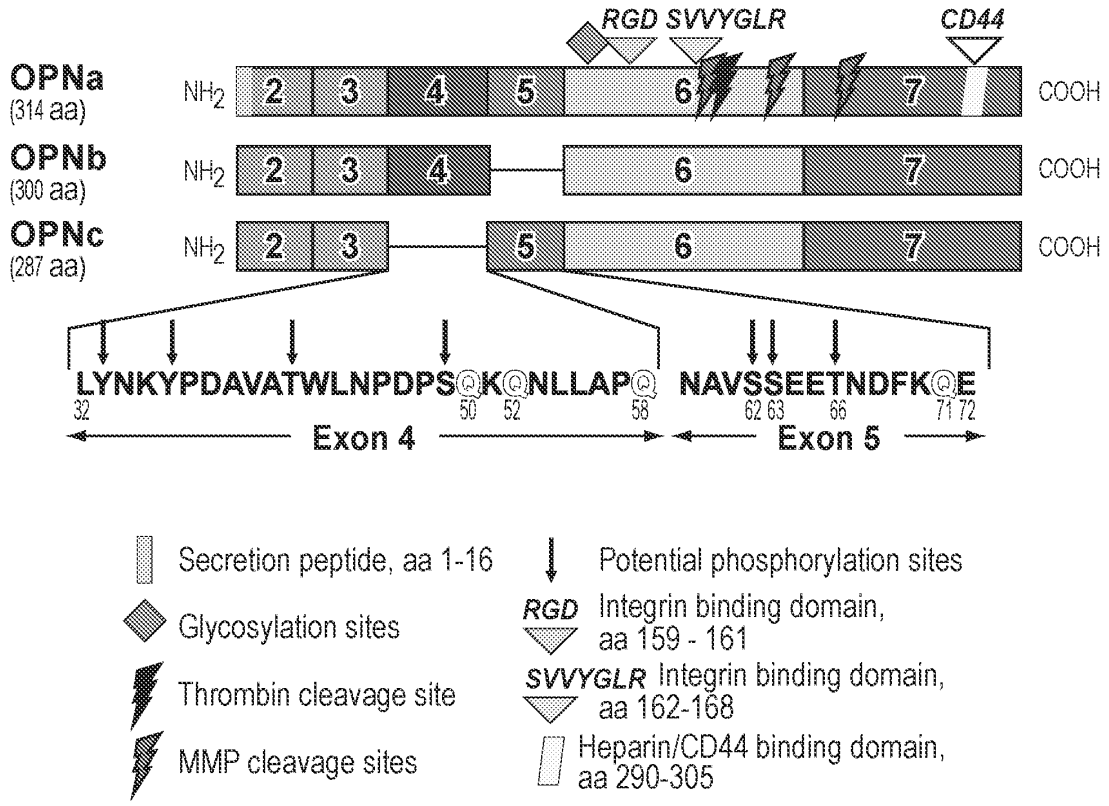

RGD
SVVYGLR
CD44
OPNa
(314 aa)
OPNb
(300 aa)
OPNc
(287 aa)
NH2
COOH
2
3
4
5
6
7
LYNKYPDAVATWLNPDPS@K@NLLAP@
NAVSSEETNDFK@E
32
50
52
58
62
63
66
71
72
Exon 4
Exon 5
Secretion peptide, aa 1-16
Potential phosphorylation sites
Glycosylation sites
RGD Integrin binding domain, aa 159 - 161
Thrombin cleavage site
SVVYGLR Integrin binding domain, aa 162-168
MMP cleavage sites
Heparin/CD44 binding domain, aa 290-305

FIG. 1

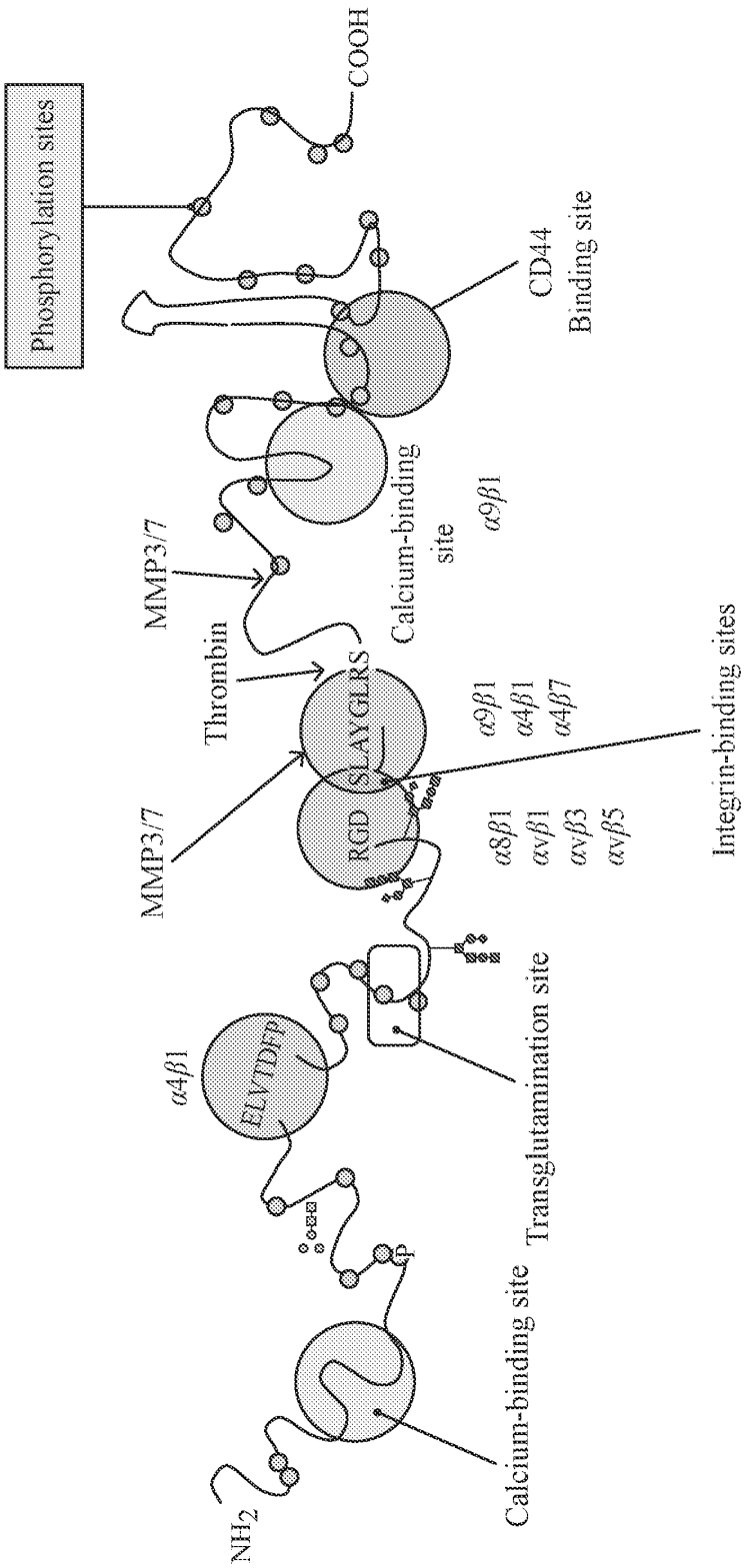

Phosphorylation sites
COOH
CD44
Binding site
MMP3/7
Thrombin
Calcium-binding
site
α9β1
MMP3/7
RGD
SLAYGLRS
α9β1
α4β1
α4β7
α8β1
αvβ1
αvβ3
αvβ5
Integrin-binding sites
α4β1
ELVTDFP
Transglutamination site
P
NH2
Calcium-binding site

FIG. 2

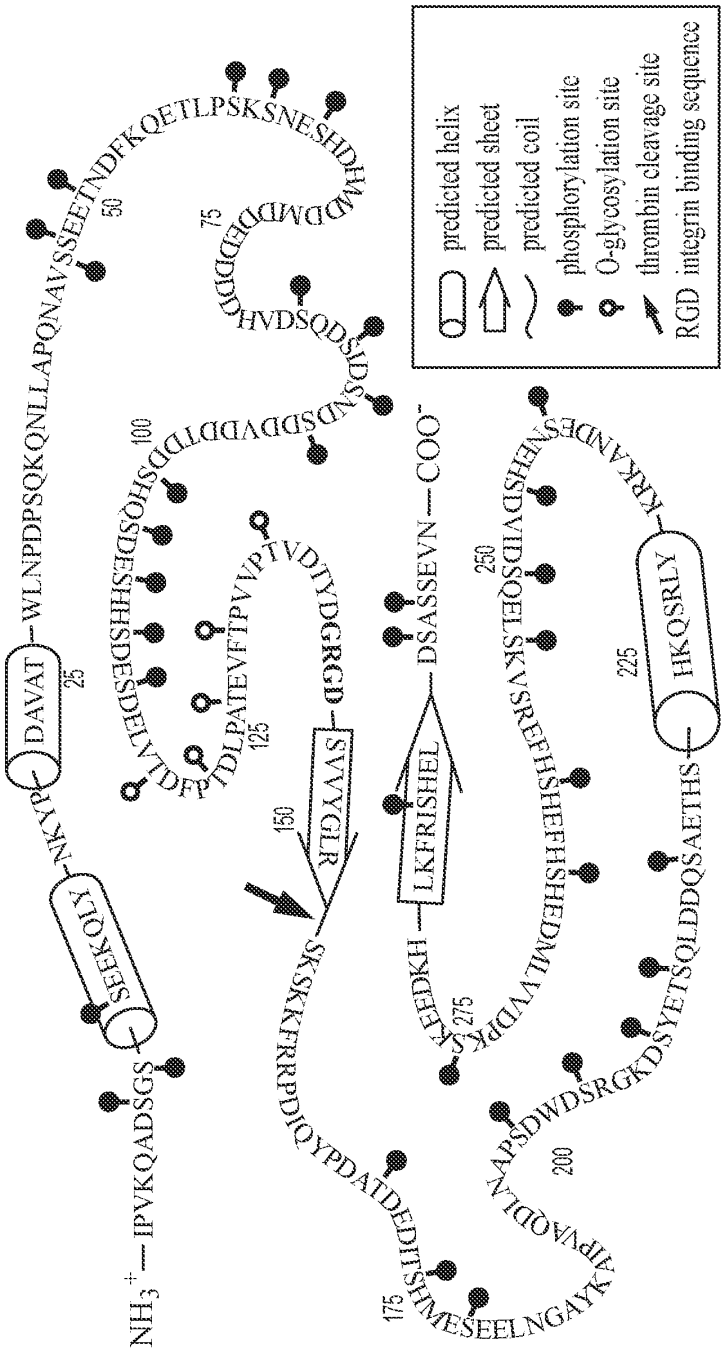

predicted helix
predicted sheet
predicted coil
phosphorylation site
O-glycosylation site
thrombin cleavage site
RGD integrin binding sequence
NH3+—IPVKQADSGS
SEEKQLY
NKVPL
DAVAT
25
WLNPDPSQKQNLLAPQNAVSSEETNDFKQETLPSKSNESHDHMDDMDDEDDDV
50
75
HVDSQDSIDSNDSDDVDDTDDSHQSDESHHSDESDELVTDFPTDLPATEVFTPVPTVDTYDGRGDSVVYGLR
100
125
150
SKSKKFRRPDIQYPDATDEDITSHMESEELNGAYK
175
AIPVADLKDVLNAPSDWDSRGKDSYETSQLDDQSAETHS
200
LKFRISHEL
DSASSEVN—COO-
KFEDKH
225
HKQSRLY
250
KRKANDESNEHSDVIDSQELSKVSREFHSHEFHSHEDMLVVDPKS
275

FIG. 3

10 20 30 40 50
MRIAVICFCL LGITCAIPVK QADSGSSEEK QLYNKYPDAV ATWLNPDPSQ
60 70 80 90 100
KQNLLAPQNA VSSEETNDFK QETLPSKSNE SHDHMDDMDD EDDDDHVDSQ
110 120 130 140 150
DSIDSNDSDD VDDTDDSHQS DESHHSDESD ELVTDFPTDL PATEVFTPVV
160 170 180 190 200
PTVDTYDGRG SVVYGLRSK SKKFRRPDIQ YPDATDEDIT SHMESEELNG
210 220 230 240 250
AYKAIPVAQD LNAPSDWDSR GKDSYETSQL DDQSAETHSH KQSRLYKRKA
260 270 280 290 300
NDESNEHSDV IDSQELSKVS REFHSHEFHS HEDMLVVDPK SKEEDKHLKF
310
RQSHELDSAS SEVN---C-terminal
Key domains are marked:
1) RGD integrin binding domain #1 (R159-D161) - DGR
2) Integrin binding domain #2 (S162-R168) - SVVYGLR
3) Calcium binding domain (D216-S228) - DWDSRGKDSYETS
4) Thrombin cleavage site (R168-S169) - RS
5) Heparin/CD44 binding (290-305)?
5) Phosphorylation sites - S

FIG. 4

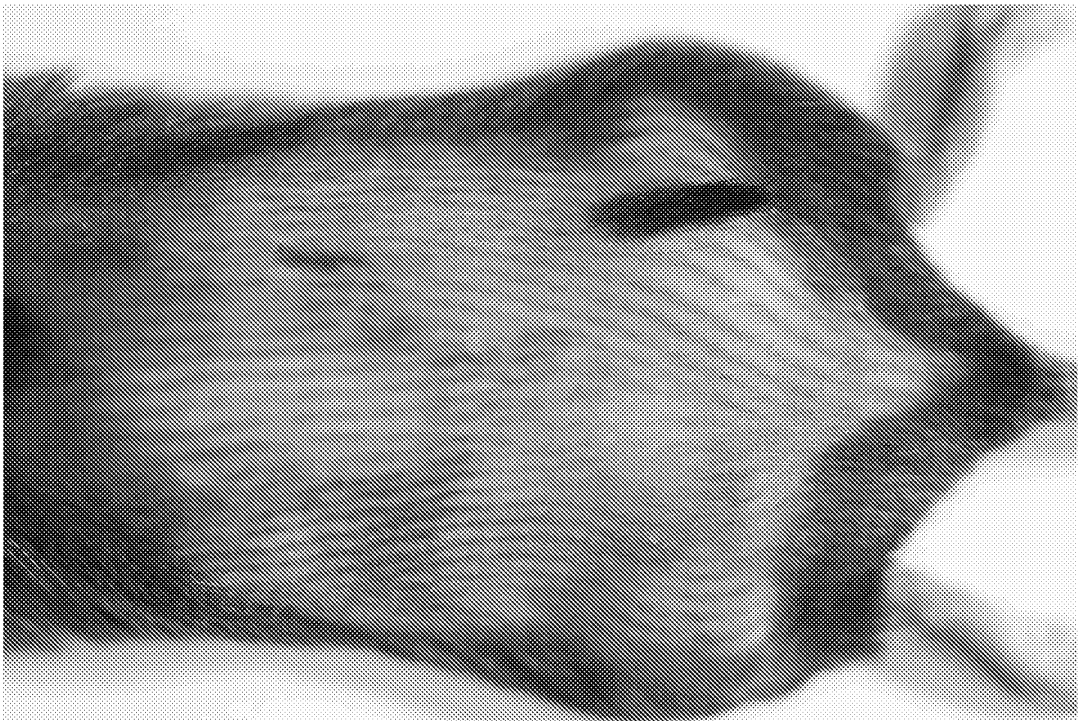


FIG. 5

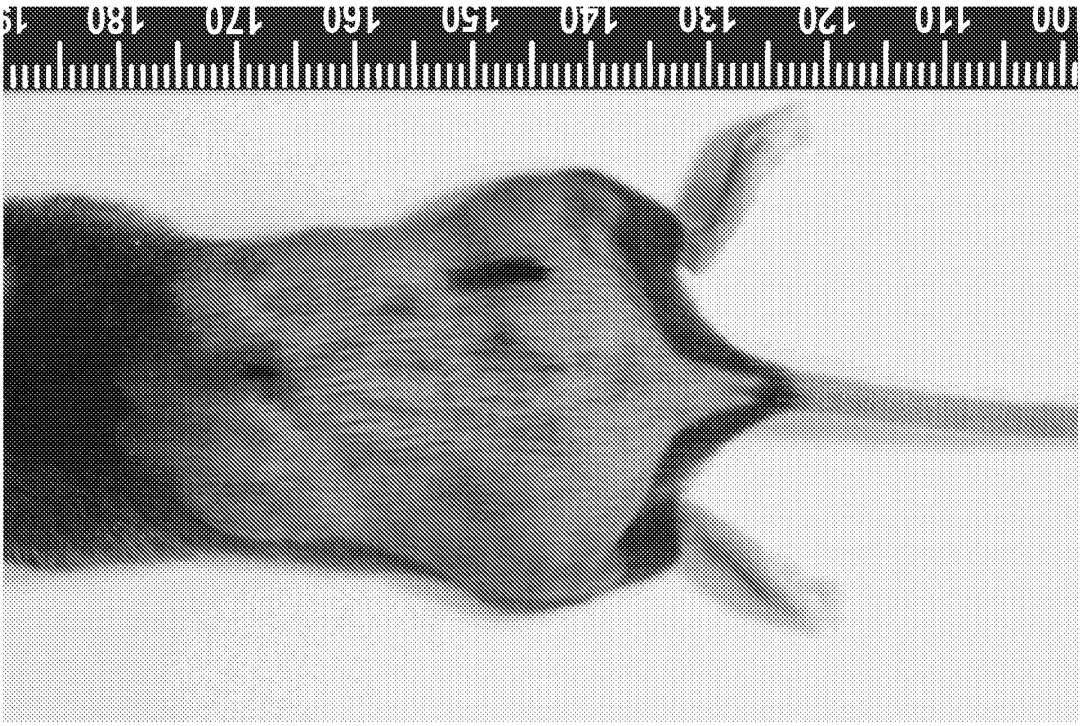


FIG. 6

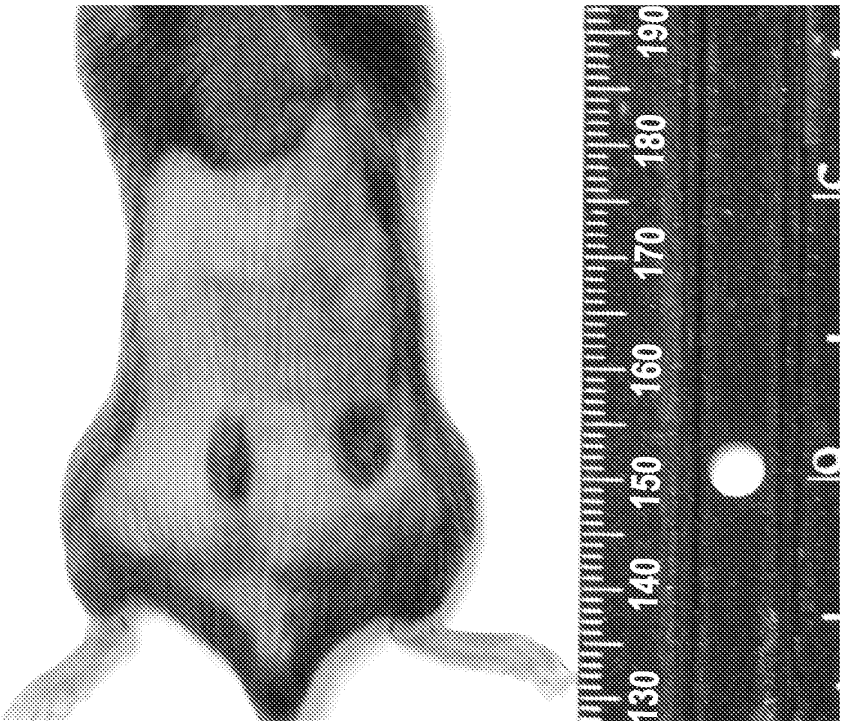


FIG. 7

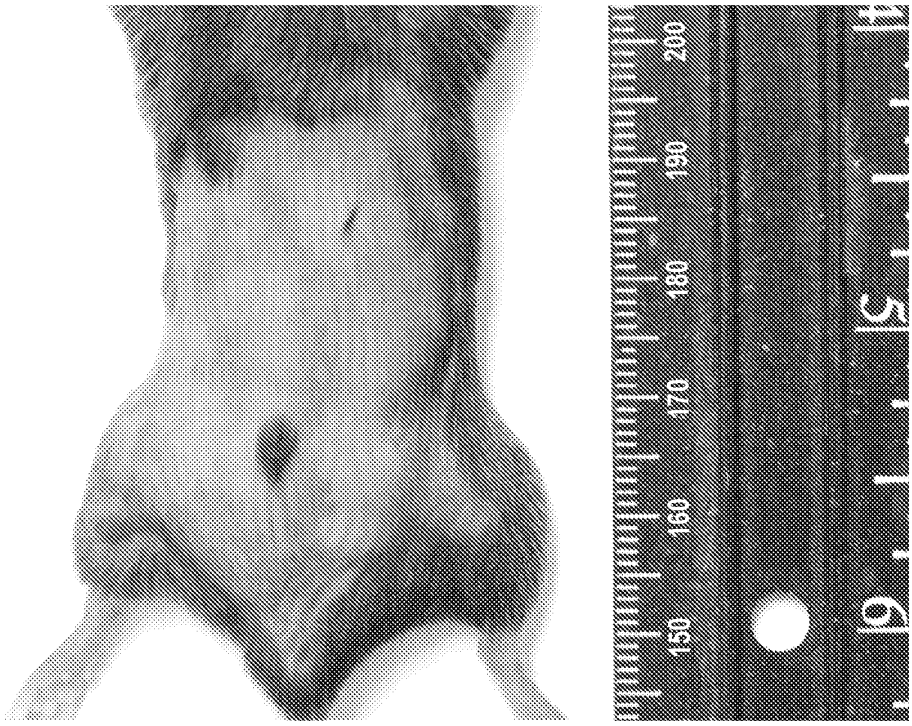


FIG. 8