SUPPLEMENTAL INFORMATION

EXOGENOUS RECOMBINANT DIMERIC NEUROPILIN-1 IS SUFFICIENT TO DRIVE ANGIOGENESIS

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Fig. S1. Schematic of the structure of the recombinant NRP-1 proteins. (A) Human full-length NRP-1, where amino acid sequence 1-923 covers the extracellular domains (a-c), transmembrane (TM) and intracellular regions (IC). (B) The Fc linked rat NRP-1, in which two identical molecules are joined by a disulfide bridge within the Fc region. The construct contains all the extracellular domains, which is followed by a small deletion (811-828 amino acids), replaced with arginine residues, subsequent linker region originating from the original rat NRP-1 sequence, a factor Xa cleavage site (IEGRDMD), IgG1 and a His tag. (C) Soluble variant of human NRP-1, where amino acids 1-644 cover the extracellular domains, a1, a2, b1, b2, but not the c domain, and a hexhistidine (6xHis) tag. (D) Silver staining of SDS-PAGE resolution of 100 ng of both recombinant proteins (marker sizes are indicated). (E) Silver staining of native PAGE resolution of 100 ng of both recombinant proteins (marker sizes are indicated).

Fig. S2. Amino acid sequence of recombinant NRP-1 proteins and human wild-type NRP-1. (A) Alignment of full-length human NRP-1 and the corresponding rat sequence covered in Fc rNRP-1. (B) Alignment of full-length human NRP-1 and the NRP-1 sequence covered by shNRP-1 and the rat sequence covered by Fc rNRP-1. The differing amino acids are marked in red.

Figure S1

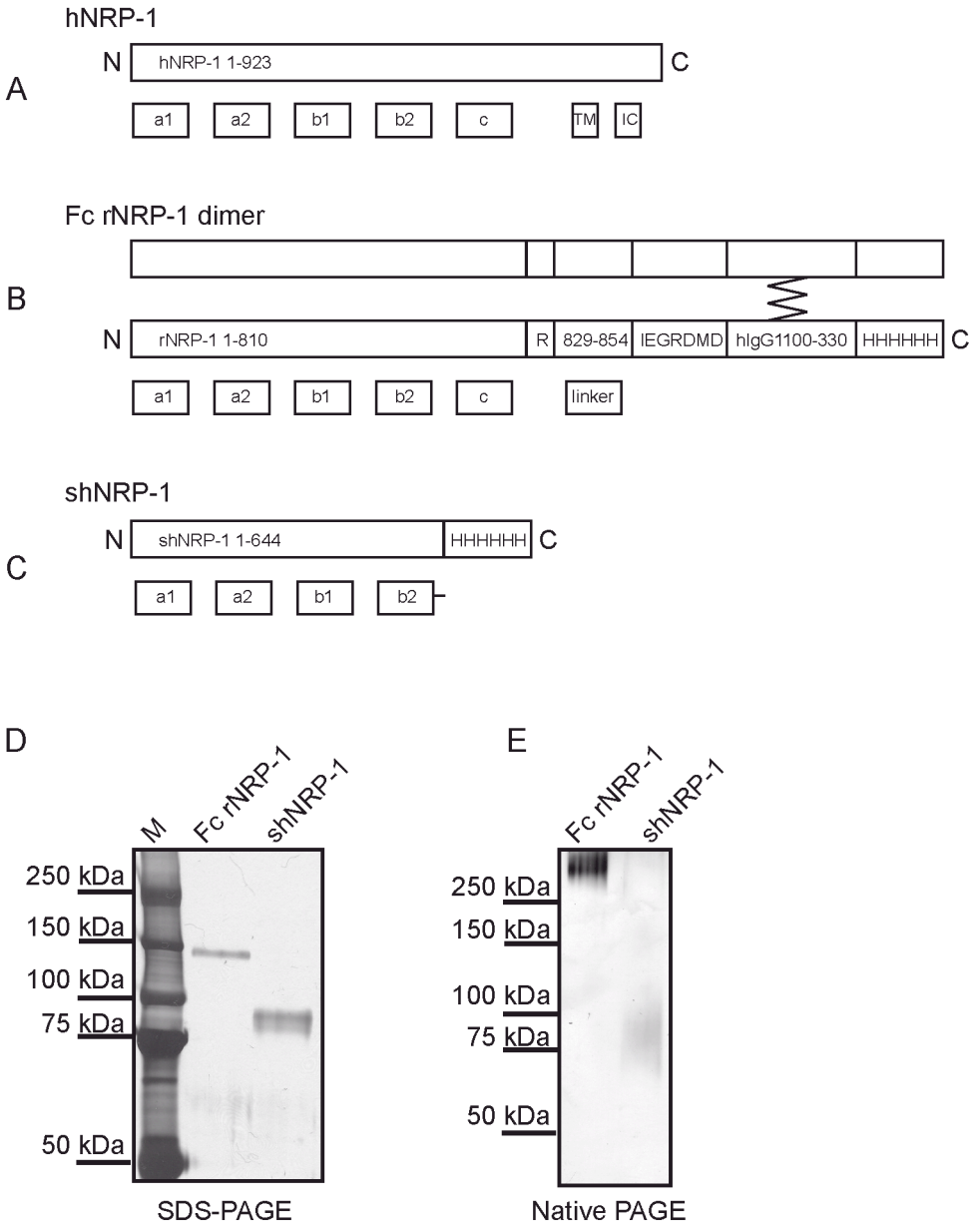
A
hNRP-1
N
hNRP-1 1-923
C
a1
a2
b1
b2
c
TM
IC
B
Fc rNRP-1 dimer
N
rNRP-1 1-810
R
829-854
IEGRDMD
hIgG1100-330
HHHHHH
C
a1
a2
b1
b2
c
linker
C
shNRP-1
N
shNRP-1 1-644
HHHHHH
C
a1
a2
b1
b2
D
M
Fc rNRP-1
shNRP-1
250 kDa
150 kDa
100 kDa
75 kDa
50 kDa
SDS-PAGE
E
Fc rNRP-1
shNRP-1
250 kDa
150 kDa
100 kDa
75 kDa
50 kDa
Native PAGE

Figure S2