

# Anti-Neuropilin-1 (a1 CUB Domain) Antibody

Catalog # AN1857

# **Specification**

#### Anti-Neuropilin-1 (a1 CUB Domain) Antibody - Product Information

Application WB, IHC
Primary Accession O14786
Reactivity Bovine
Host Rabbit

Clonality Rabbit Polyclonal

Isotype IgG
Calculated MW 103134

### Anti-Neuropilin-1 (a1 CUB Domain) Antibody - Additional Information

Gene ID **8829** 

**Other Names** 

NRP1, VEGF 165, VEGFR

Dilution

WB~~1:1000 IHC~~1:100~500

#### Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### **Precautions**

Anti-Neuropilin-1 (a1 CUB Domain) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## **Shipping**

Blue Ice

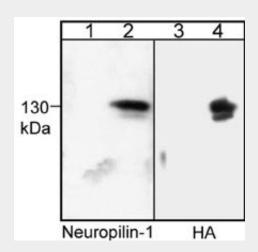
#### Anti-Neuropilin-1 (a1 CUB Domain) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

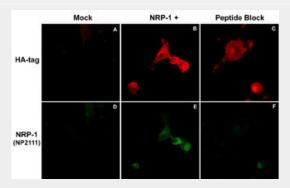
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

#### Anti-Neuropilin-1 (a1 CUB Domain) Antibody - Images





Western blot image of COS-7 cells untransfected (lanes 1 & 3) or transfected with HA-tagged mouse neuropilin-1 (lanes 2 & 4). Blots were probed with anti-Neuropilin-1 (NP2111) (lanes 1 & 2) or with anti-HA (lanes 3 & 4).



Immunocytochemical double labeling using anti-HA mouse monoclonal and anti-NRP-1 rabbit polyclonal (NP2111) antibodies in COS-7 cells mock transfected (A,D) or transfected with NRP-1 constructs (B,E). The specificity of the binding in E was demonstrated by using NRP-1 peptide (NX2115) in the presence of the anti-NRP-1 antibody (C,F).

#### Anti-Neuropilin-1 (a1 CUB Domain) Antibody - Background

Neuropilins are transmembrane proteins that contain two CUB domains (a1 and a2), two coagulation factor-like domains (b1 and b2), and a MAM domain in the extracellular region. These proteins have short cytoplasmic domains that include a PDZ-binding motif. The neuropilin (NRP) family includes NRP-1, NRP-2A, and NRP-2B. NRP-1 has been implicated as a receptor involved in axon guidance and VEGF signaling. NRP-1 mediates activation of intracellular signaling pathways through interaction with its co-receptors, Plexin-A1 and VEGFRs. The expression of NRP-1, along with the co-receptor Plexin-A1, is upregulated in neurons after central nervous system injury. The axons from these neurons cannot cross semaphorin 3A-containing regions at the site of injury. Thus, semaphorin 3A and its co-receptors, Plexin-A1 and Neuropilin-1, may have significant roles in axon regeneration after neuronal injury.