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Anti-Plexin A1 (Sema Domain) Antibody
Catalog # AN1911

Specification

Anti-Plexin A1 (Sema Domain) Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q9UIW2
Reactivity	**Bovine**
Host	**Rabbit**
Clonality	**Rabbit Polyclonal**
Isotype	**IgG**
Calculated MW	**211067**

Anti-Plexin A1 (Sema Domain) Antibody - Additional Information

Gene ID	**5361**

Other Names
PLXN1, NOV, Sema3A

Dilution
WB~~1:1000
IHC~~1:100~500
IF~~1:50~200

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-Plexin A1 (Sema Domain) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Anti-Plexin A1 (Sema 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-Plexin A1 (Sema Domain) Antibody - Images

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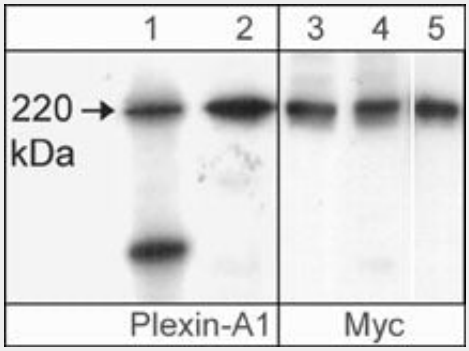
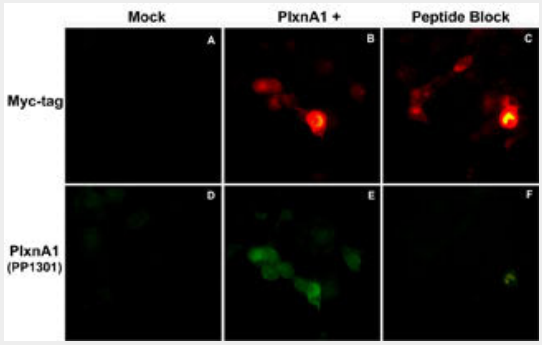


Western blots showing Cos-7 cells transfected with mouse Myc-tagged Plexin-A1 (lanes 1 & 3), neonatal rat brain (lane 2), or Plexin-A1 immunoprecipitated from Myc-tagged Plexin-A1 transfected cells using anti-Myc (lane 4) or anti-Plexin-A1 (PP1301; lane 5). These blots were probed with either the affinity purified anti-Plexin-A1 (PP1301; lanes 1 & 2) or with mouse monoclonal anti-Myc (lanes 3-5).



Immunocytochemical double labeling using anti-Myc mouse monoclonal and anti-Plexin-A1 rabbit polyclonal (PP1301) antibodies in Cos-7 cells mock transfected (A,D) or transfected with Myc-tagged mouse Plexin-A1 construct (B,E). The specificity of the binding in E was demonstrated by using Plexin-A1 peptide (PX1305) in the presence of this anti-Plexin-A1 antibody (C,F).

Anti-Plexin A1 (Sema Domain) Antibody - Background

Plexins are a family of large integral membrane proteins that complex with neuropilins to form semaphorin co-receptors. The extracellular region of plexins contains a semaphorin domain, multiple glycine-rich motifs, and MET-related sequences. The cytoplasmic region contains a Sex/Plexin domain and putative tyrosine phosphorylation sites that mediate signal transduction after activation. This region in Plexin-A1 binds the RhoGTPases, Rnd1 and RhoD. Recruitment of Rnd1 has been implicated in the cytoskeletal collapse that occurs after semaphorin-mediated activation of Plexin-A1, while RhoD may block this collapsing activity through interaction with the cytoplasmic region of Plexin-A1. The expression of Plexin-A1, along with the co-receptor Neuropilin-1, 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.