

#3994 Store at -20°C

Plexin A2 Antibody


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3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: WB, IP	Reactivity: H M R	Sensitivity: Endogenous	MW (kDa): 212	Source: Rabbit	UniProt ID: #O75051	Entrez-Gene Id: 5362
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Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:50
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	Plexin A2 Antibody detects endogenous levels of total Plexin A2 protein.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide surrounding Leu450 of human Plexin A2. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	<p>Class 3 secreted semaphorin (Sema3A) is a chemorepellent that acts upon a wide variety of axons. As such, it induces a dramatic redistribution and depolymerization of actin filaments that results in growth cone collapse. Plexins are single membrane-spanning signaling proteins encompassing Plexin A1, A2, A3, and A4. Plexins form a complex with neuropilin-1 and -2 and the cell adhesion protein L1 to form a functional semaphorin receptor (1,2). The GTPase Rnd1 binds to the cytoplasmic domain of Plexin A1 to trigger cytoskeletal collapse. In contrast, the GTPase RhoD blocks Rnd1-mediated Plexin A1 activation and repulsion of sympathetic axons by Sema3A (3).</p> <p>Sema6A is also a ligand for Plexin A2. Both Sema6A and Plexin A2 knock-out mice have a granule cell migration defect, where cells remain in the molecular layer. Furthermore, Plexin A2 also controls nucleus-centrosome coupling which modulates cell migration (4).</p>	
Background References	<ol style="list-style-type: none"> 1. Pasterkamp, R.J. and Kolodkin, A.L. (2003) <i>Curr Opin Neurobiol</i> 13, 79-89. 2. Takahashi, T. and Strittmatter, S.M. (2001) <i>Neuron</i> 29, 429-39. 3. Zanata, S.M. et al. (2002) <i>J Neurosci</i> 22, 471-7. 4. Renaud, J. et al. (2008) <i>Nat Neurosci</i> 11, 440-9. 	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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