

Plexin A3 (D2G12) Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	207	Rabbit IgG	#P51805	55558
Product Usage Information	Application					Dilution
	Western Blotting					1:1000
	Immunoprecipitation					1:50
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.					
Specificity/Sensitivity	Plexin A3 (D2G12) Rabbit mAb detects endogenous levels of total Plexin A3 protein. Plexin A3 (D2G12) Rabbit mAb may cross-react with other family members.					
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide surrounding Val440 of human Plexin A3.					
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>Both Plexin A3 and A4 mediate the responses to class 3 semaphorins in sensory and sympathetic neurons. In particular, Plexin A4 is responsible for signaling of Sema 3A via neuropilin-1, while Plexin A3 is responsible for signaling of Sema 3F via neuropilin-2 (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. Yaron, A. et al. (2005) <i>Neuron</i> 45, 513-23. 					

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	W: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	H: Human
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