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Phospho-Dab1 (Tyr220) Antibody

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

Applications: W	Reactivity: H	Sensitivity: Transfected Only	MW (kDa): 80, 110 GFP-Dab1 fusion.	Source/Isotype: Rabbit	UniProt ID: #O75553	Entrez-Gene Id: 1600
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Product Usage Information	Application Western Blotting	Dilution 1:1000
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	Phospho-Dab1 (Tyr220) Antibody detects transfected levels of Dab1 protein only when phosphorylated at tyrosine 220.	
Species predicted to react based on 100% sequence homology	Mouse, Rat	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Tyr220 of human Dab1. Antibodies are purified by protein A and peptide affinity chromatography.	
Background	The Reelin signaling pathway plays a critical role in neuronal development. Reelin is a secreted glycoprotein that binds to the lipoprotein receptors VLDLR and ApoER2 or alpha3beta1 integrin on the surface of neurons (1,2). Activation of these receptors induces tyrosine phosphorylation of Disabled 1 (Dab1), an intracellular adaptor. It is generally believed that tyrosine phosphorylation of Dab1 by Src family tyrosine kinases is the most critical downstream event in Reelin signaling. The phosphotyrosine-binding (PTB) domain within its amino terminus enables Dab1 to recognize and bind to a conserved sequence motif within the cytoplasmic tail of the receptors. In addition, the PTB contains a Pleckstrin Homology-like subdomain that binds to phosphoinositides. The phosphoinositide-binding region within the Dab1 PTB domain is required for membrane localization and basal tyrosine phosphorylation of Dab1 independent of VLDLR and ApoER2 (3). It has been demonstrated that Src, CrkII, CrkL and Dock1 associate with tyrosine-phosphorylated Dab. The CrkII-Dab1 interaction requires tyrosine phosphorylation of Dab1 at residues 220 or 232 (4).	
Background References	<ol style="list-style-type: none"> Huang, Y. et al. (2005) <i>Biochem. Biophys. Res. Commun.</i> 331, 1460-1468. Luque, J.M. (2004) <i>Brain Res. Dev. Brain Res.</i> 152, 269-271. Morimura, T. et al. (2005) <i>J. Biol. Chem.</i> 280, 16901-16908. Chen, K. et al. (2004) <i>J. Cell. Sci.</i> 117, 4527-4536. 	

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
Cross-Reactivity Key	H: Human
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