

#3327 Store at -20C

Phospho-Dab1 (Tyr220) Antibody

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H	Transfected Only	80, 110 GFP-Dab1 fusion.	Rabbit	#O75553	1600

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

- Huang, Y. et al. (2005) *Biochem. Biophys. Res. Commun.* 331, 1460-1468.
- Luque, J.M. (2004) *Brain Res. Dev. Brain Res.* 152, 269-271.
- Morimura, T. et al. (2005) *J. Biol. Chem.* 280, 16901-16908.
- Chen, K. et al. (2004) *J. Cell. Sci.* 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

WB: Western Blotting

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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