

#3327 Store at -20°C

Phospho-Dab1 (Tyr220) Antibody

✓ 100 µl (10 western blots)

Orders ■ 877-616-CELL (2355) orders@cellsignal.com
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This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Entrez-Gene ID #1600
Swiss-Prot Acc. #075553

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Transfected	H, (M, R)	80 kDa 110 GFP-Dab1 fusion kDa	Rabbit**

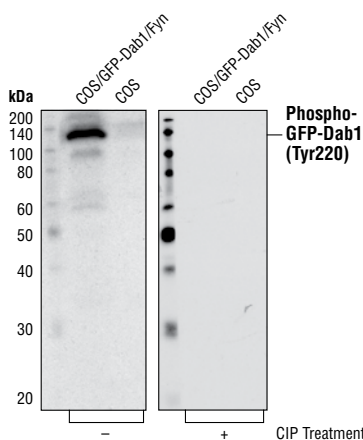
Background: The Reelin signaling pathway plays a critical role in neuronal development. Reelin is a secreted glycoprotein that binds to the lipoprotein receptors VLDLR and ApoER2 or $\alpha 3 \beta 1$ integrin on the surface of neurons (1,2). Activation of these receptors induces tyrosine phosphorylation 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).

Specificity/Sensitivity: Phospho-Dab1 (Tyr220) Antibody detects transfected levels of Dab1 protein only when phosphorylated at tyrosine 220.

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 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.



Western blot analysis of cell lysates from COS cells co-transfected with GFP-Dab1 and Fyn expression constructs, untreated and treated with calf intestinal phosphatase (CIP), using Phospho-Dab1 (Tyr220) Antibody.

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.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey 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 All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.