

p-Dab1 (Tyr 220): sc-133292

BACKGROUND

Dab1, a homolog of the *Drosophila* disabled protein, is an adaptor protein involved in neural development. This cytoplasmic protein is tyrosine-phosphorylated during rapid expansion of the developing nervous system, and it is thought to interact with other proteins via a domain similar to the PTB domains of the Shc family. Dab1 has been shown to interact with the SH2 domains of Src, Fyn and Abl. Mutations in Dab1 result in widespread abnormalities in the brain, similar to those seen in Reelin mutants. Thought to play a role in directing migrating neurons, Reelin is a secreted protein that requires tyrosine phosphorylation of Dab1 for its signaling activity. Evidence suggests that Dab1 functions downstream of Reelin in a signaling pathway involved in positioning cells in the developing brain.

CHROMOSOMAL LOCATION

Genetic locus: DAB1 (human) mapping to 1p32.2; Dab1 (mouse) mapping to 4 C6.

SOURCE

p-Dab1 (Tyr 220) is a rabbit polyclonal antibody raised against a short amino acid sequence containing Tyr 220 phosphorylated Dab1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-133292 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

p-Dab1 (Tyr 220) is recommended for detection of Tyr 220 phosphorylated Dab1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

p-Dab1 (Tyr 220) is also recommended for detection of correspondingly phosphorylated Dab1 in additional species, including equine, bovine, porcine and avian.

Suitable for use as control antibody for Dab1 siRNA (h): sc-35165, Dab1 siRNA (m): sc-35166, Dab1 shRNA Plasmid (h): sc-35165-SH, Dab1 shRNA Plasmid (m): sc-35166-SH, Dab1 shRNA (h) Lentiviral Particles: sc-35165-V and Dab1 shRNA (m) Lentiviral Particles: sc-35166-V.

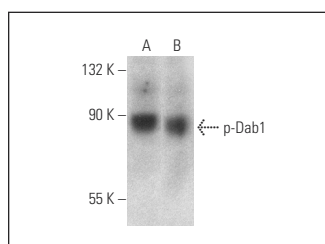
Molecular Weight of p-Dab1: 85 kDa.

Positive Controls: mouse brain extract: sc-2253 or rat brain extract: sc-2392.

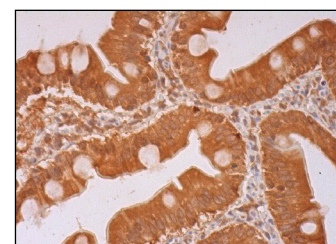
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto B Blocking Reagent: sc-2335 (use 50 mM NaF, sc-24988, as diluent), Western Blotting Luminol Reagent: sc-2048 and Lambda Phosphatase: sc-200312A. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



p-Dab1 (Tyr 220): sc-133292. Western blot analysis of Dab1 phosphorylation in mouse brain (A) and rat brain (B) tissue extracts.



p-Dab1 (Tyr 220): sc-133292. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic and nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

- Sultana, H., et al. 2012. Semaphorin 7A contributes to West Nile virus pathogenesis through TGF-β1/Smad6 signaling. *J. Immunol.* 189: 3150-3158.
- Díaz-Mendoza, M.J., et al. 2013. Interdigital cell death in the embryonic limb is associated with depletion of Reelin in the extracellular matrix. *Cell Death Dis.* 4: e800.
- Díaz-Mendoza, M.J., et al. 2014. Reelin/DAB-1 signaling in the embryonic limb regulates the chondrogenic differentiation of digit mesodermal progenitors. *J. Cell. Physiol.* 229: 1397-1404.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.