SANTA CRUZ BIOTECHNOLOGY, INC.

Dab2 (H-110): sc-13982

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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. Reelin is a secreted protein thought to play a role in directing migrating neurons. Evidence suggests that Dab1 functions downstream of Reelin in a signaling pathway involved in positioning cells in the developing brain. Dab2 (also designated DOC2) is a mitogen-responsive phosphoprotein that binds the SH3 domain of GRB2, and it is thought to be a negative regulator of growth.

CHROMOSOMAL LOCATION

Genetic locus: DAB2 (human) mapping to 5p13.1; Dab2 (mouse) mapping to 15 A1.

SOURCE

Dab2 (H-110) is a rabbit polyclonal antibody raised against amino acids 661-770 of Dab2 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.

APPLICATIONS

Dab2 (H-110) is recommended for detection of Dab2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Dab2 (H-110) is also recommended for detection of Dab2 in additional species, including canine.

Suitable for use as control antibody for Dab2 siRNA (h): sc-35167, Dab2 siRNA (m): sc-35168, Dab2 shRNA Plasmid (h): sc-35167-SH, Dab2 shRNA Plasmid (m): sc-35168-SH, Dab2 shRNA (h) Lentiviral Particles: sc-35167-V and Dab2 shRNA (m) Lentiviral Particles: sc-35168-V.

Molecular Weight of Dab2 isoforms: 67/93/96 kDa.

Positive Controls: Dab2 (m): 293T Lysate: sc-119651, Y79 cell lysate: sc-2240 or H4 cell lysate: sc-2408.

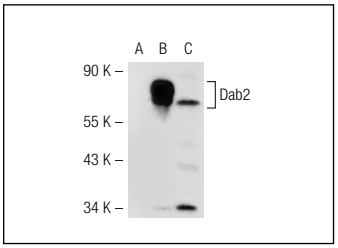
STORAGE

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

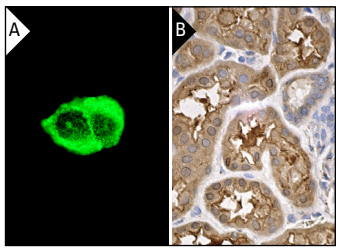
RESEARCH USE

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

DATA



Dab2 (H-110): sc-13982. Western blot analysis of Dab2 expression in non-transfected 293T: sc-117752 (**A**), mouse Dab2 transfected 293T: sc-119651 (**B**) and Y79 (**C**) whole cell lysates.



Dab2 (H-110): sc-13982. Immunofluorescence staining of methanol-fixed H4 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing apical plasma membrane and cytoplasmic staining of cells in tubules (**B**).

SELECT PRODUCT CITATIONS

1. Swiatecka-Urban, A., et al. 2004. Myosin VI regulates endocytosis of the cystic fibrosis transmembrane conductance regulator. J. Biol. Chem. 279: 38025-38031.
2. Tanuma, A., et al. 2007. Functional characterization of a novel missense CLCN5 mutation causing alterations in proximal tubular endocytic machinery in Dent's disease. Nephron Physiol. 107: p87-p97.
3. Romero, D.G., et al. 2007. Disabled-2 is expressed in adrenal zona glomerulosa and is involved in aldosterone secretion. Endocrinology 148: 2644-2652.
4. Zhang, H., et al. 2008. Mutational analysis of the FXNPXY motif within LDL receptor-related protein 1 (LRP1) reveals the functional importance of the tyrosine residues in cell growth regulation and signal transduction. Biochem. J. 409: 53-64.
5. Huang, C.L., et al. 2010. Disabled-2 is required for mesoderm differentiation of murine embryonic stem cells. J. Cell. Physiol. 225: 92-105.
6. Bandulik, S., et al. 2010. TASK1 and TASK3 potassium channels: determinants of aldosterone secretion and adrenocortical zonation. Horm. Metab. Res. 42: 450-457.
7. Goodfellow, S.J., et al. 2011. WT1 and its transcriptional cofactor BASP1 redirect the differentiation pathway of an established blood cell line. Biochem. J. 435: 113-125.
8. Chetrit, D., et al. 2011. Negative regulation of the endocytic adaptor disabled-2 (Dab2) in mitosis. J. Biol. Chem. 286: 5392-5403.