

TAB1 (N-19): sc-6052



The Power to Question

BACKGROUND

The TAK1 binding proteins, TAB1, TAB2 and TAB3, interact with the MAPKKK TAK1 in response to various stimuli. TAB1 activates TAK1 in TGF β mediated signaling. TAB1 also plays a central role in a p38 α activation pathway that is independent of MAPKK. In response to proinflammatory signals, TAB2 complexes with TRAF6 and TAK1, leading to translocation of the complex from the membrane to the cytosol and the subsequent activation of TAK1. When overexpressed, TAB3 activates both NF κ B and AP-1 transcription factors. In response to TNF α or IL-1, TAK1 complexes with TAB1 and TAB2 or with TAB1 and TAB3 to yield two distinct complexes.

CHROMOSOMAL LOCATION

Genetic locus: TAB1 (human) mapping to 22q13.1; Map3k7ip1 (mouse) mapping to 15 E1.

SOURCE

TAB1 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of TAB1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-6052 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TAB1 (N-19) is recommended for detection of TAB1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

TAB1 (N-19) is also recommended for detection of TAB1 in additional species, including canine, porcine and avian.

Suitable for use as control antibody for TAB1 siRNA (h): sc-36600, TAB1 siRNA (m): sc-36601, TAB1 shRNA Plasmid (h): sc-36600-SH, TAB1 shRNA Plasmid (m): sc-36601-SH, TAB1 shRNA (h) Lentiviral Particles: sc-36600-V, and TAB1 shRNA (m) Lentiviral Particles: sc-36601-V.

Molecular Weight of TAB1: 56 kDa.

Positive Controls: TAB1 (h): 293T Lysate: sc-116261, NIH/3T3 whole cell lysate: sc-2210 or K-562 whole cell lysate: sc-2203.

RESEARCH USE

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

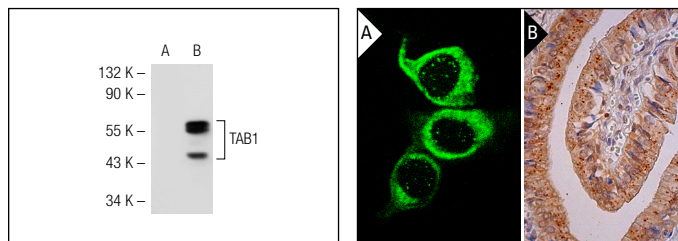
PROTOCOLS

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

STORAGE

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

DATA



TAB1 (N-19): sc-6052. Western blot analysis of TAB1 expression in non-transfected: sc-117752 (A) and human TAB1 transfected: sc-116261 (B) 293T whole cell lysates.

TAB1 (N-19): sc-6052. Immunofluorescence staining of methanol-fixed NIH/3T3 cells showing cytoplasmic staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic and nuclear staining of glandular cells (B).

SELECT PRODUCT CITATIONS

- Sakurai, H., et al. 1999. Functional interaction of transforming growth factor β -activated kinase 1 with I κ B kinases to stimulate NF κ B activation. *J. Biol. Chem.* 274: 10641-10648.
- Liu, Q., et al. 2009. Interaction between TAK1-TAB1-TAB2 and RCAN1-calcineurin defines a signalling nodal control point. *Nat. Cell Biol.* 11: 154-161.
- Ear, T., et al. 2010. Constitutive association of TGF- β -activated kinase 1 with the I κ B kinase complex in the nucleus and cytoplasm of human neutrophils and its impact on downstream processes. *J. Immunol.* 184: 3897-3906.
- Matluk, N., et al. 2010. A role for NRAGE in NF κ B activation through the non-canonical BMP pathway. *BMC Biol.* 8: 7.
- Fan, Y.H., et al. 2011. USP4 targets TAK1 to downregulate TNF α -induced NF κ B activation. *Cell Death Differ.* 18: 1547-1560.
- Fan, Y., et al. 2011. TAK1 Lys-158 but not Lys-209 is required for IL-1 β -induced Lys63-linked TAK1 polyubiquitination and IKK/NF κ B activation. *Cell. Signal.* 23: 660-665.
- Dong, L., et al. 2012. Toll-like receptor 2 monoclonal antibody or/and Toll-like receptor 4 monoclonal antibody increase counts of *Lactobacilli* and *Bifidobacteria* in dextran sulfate sodium-induced colitis in mice. *J. Gastroenterol. Hepatol.* 27: 110-119.

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Try **TAB1 (B-3): sc-166138** or **TAB1 (R-32): sc-100869**, our highly recommended monoclonal alternatives to TAB1 (N-19).