

# TAB2 (K-20): sc-11851

## BACKGROUND

The Tak1 binding proteins, TAB1, TAB2 and TAB3, interact with the MAPKKK Tak1 in response to various stimuli. TAB1 activates Tak1 in TGF $\beta$  mediated signaling. TAB1 also plays a central role in a p38 $\alpha$  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 over-expressed, TAB3 activates both NF $\kappa$ B and AP-1 transcription factors. In response to TNF $\alpha$  or IL-1, Tak1 complexes with TAB1 and TAB2 or with TAB1 and TAB3 to yield two distinct complexes.

## CHROMOSOMAL LOCATION

Genetic locus: TAB2 (human) mapping to 6q25.1; Tab2 (mouse) mapping to 10 A1.

## SOURCE

TAB2 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TAB2 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-11851 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

TAB2 (K-20) is recommended for detection of TAB2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

TAB2 (K-20) is also recommended for detection of TAB2 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for TAB2 siRNA (h): sc-41049, TAB2 siRNA (m): sc-41050, TAB2 shRNA Plasmid (h): sc-41049-SH, TAB2 shRNA Plasmid (m): sc-41050-SH, TAB2 shRNA (h) Lentiviral Particles: sc-41049-V and TAB2 shRNA (m) Lentiviral Particles: sc-41050-V.

Molecular Weight of TAB2: 83 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or TAB2 (m): 293T Lysate: sc-123889.

## STORAGE

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

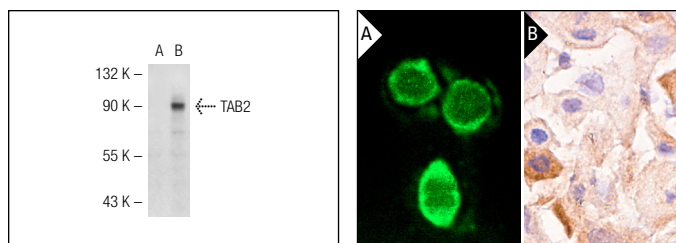
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## RESEARCH USE

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

## DATA



TAB2 (K-20): sc-11851. Western blot analysis of TAB2 expression in non-transfected: sc-117752 (A) and mouse TAB2 transfected: sc-123889 (B) 293T whole cell lysates.

TAB2 (K-20): sc-11851. Immunofluorescence staining of methanol-fixed A-431 cells showing cytoplasmic staining (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lung tumor showing cytoplasmic staining (B).

## SELECT PRODUCT CITATIONS

- Orelia, C., et al. 2003. Identification of 2 novel genes developmentally regulated in the mouse aorta-gonad-mesonephros region. *Blood* 101: 2246-2249.
- Frobose, H., et al. 2006. Suppressor of cytokine signaling-3 inhibits interleukin-1 signaling by targeting the TRAF6/Tak1 complex. *Mol. Endocrinol.* 20: 1587-1596.
- Suzuki, S., et al. 2007. Constitutive activation of TAK1 by HTLV-1 tax-dependent overexpression of TAB2 induces activation of JNK-ATF2 but not IKK-NF $\kappa$ B. *J. Biol. Chem.* 282: 25177-25181.
- Yokota, S., et al. 2008. Measles virus P protein suppresses toll-like receptor signal through up-regulation of ubiquitin-modifying enzyme A20. *FASEB J.* 22: 74-83.
- Shin, M.S., et al. 2009. Cross interference with TNF- $\alpha$ -induced TAK1 activation via EGFR-mediated p38 phosphorylation of TAK1-binding protein 1. *Biochim. Biophys. Acta* 1793: 1156-1164.
- Nishimura, M., et al. 2009. TAK1-mediated serine/threonine phosphorylation of epidermal growth factor receptor via p38/extracellular signal-regulated kinase: NF $\kappa$ B-independent survival pathways in tumor necrosis factor  $\alpha$  signaling. *Mol. Cell. Biol.* 29: 5529-5539.
- Gao, D., et al. 2009. WDR34 is a novel TAK1-associated suppressor of the IL-1R/TLR3/TLR4-induced NF $\kappa$ B activation pathway. *Cell. Mol. Life Sci.* 66: 2573-2584.
- Wolf, A., et al. 2011. Identification and functional characterization of novel phosphorylation sites in TAK1-binding protein (TAB) 1. *PLoS ONE* 6: e29256.

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Try **TAB2 (E-5): sc-398188**, our highly recommended monoclonal alternative to TAB2 (K-20).