

# TAB1 (H-300): sc-13956

## 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 overexpressed, 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.

## REFERENCES

1. Yamaguchi, K., et al. 1995. Identification of a member of the MAPKKK family as a potential mediator of TGF $\beta$  signal transduction. *Science* 270: 2008-2011.
2. Shibuya, H., et al. 1996. TAB1: an activator of the TAK1 MAPKKK in TGF $\beta$  signal transduction. *Science* 272: 1179-1182.

## CHROMOSOMAL LOCATION

Genetic locus: TAB1 (human) mapping to 22q13.1; Tab1 (mouse) mapping to 15 E1.

## SOURCE

TAB1 (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 of TAB1 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.

## RESEARCH USE

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

## APPLICATIONS

TAB1 (H-300) is recommended for detection of TAB1 of mouse 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).

TAB1 (H-300) 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.

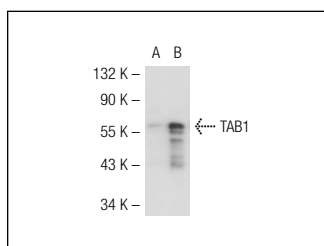
Molecular Weight of TAB1: 56 kDa.

Positive Controls: TAB1 (m): 293T Lysate: sc-123888, K-562 whole cell lysate: sc-2203 or HeLa whole cell lysate: sc-2200.

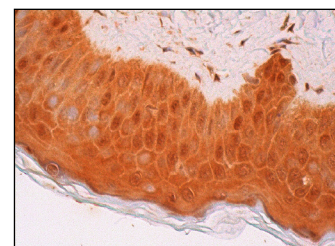
## RECOMMENDED SECONDARY REAGENTS

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<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 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<sup>™</sup> Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz<sup>™</sup>: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

## DATA



TAB1 (H-300): sc-13956. Western blot analysis of TAB1 expression in non-transfected: sc-117752 (A) and mouse TAB1 transfected: sc-123888 (B) 293T whole cell lysates.



TAB1 (H-300): sc-13956. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing nuclear and cytoplasmic staining of keratinocytes, fibroblasts, Langerhan cells and melanocytes.

## SELECT PRODUCT CITATIONS

1. Neil, J.R., et al. 2008. Altered TAB1: $\kappa$ B kinase interaction promotes transforming growth factor  $\beta$ -mediated nuclear factor- $\kappa$ B activation during breast cancer progression. *Cancer Res.* 68: 1462-1470.
2. Rzeczowski, K., et al. 2011. c-Jun N-terminal kinase phosphorylates DCP1 $\alpha$  to control formation of P bodies. *J. Cell Biol.* 194: 581-596.
3. Wolf, A., et al. 2011. Identification and functional characterization of novel phosphorylation sites in TAK1-binding protein (TAB) 1. *PLoS ONE* 6: e29256.
4. Stockert, J., et al. 2013. Regulation of TAK1/TAB1-mediated IL-1 $\beta$  signaling by cytoplasmic PPAR $\beta$ / $\delta$ . *PLoS ONE* 8: e63011.

## STORAGE

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



Try **TAB1 (B-3): sc-166138** or **TAB1 (R-32): sc-100869**, our highly recommended monoclonal alternatives to TAB1 (H-300).