

# TAB3 (D-9): sc-166538

## BACKGROUND

TAB1, TAB2 and TAB3 (for TAK1 binding proteins) interact with the MAPKKK TAK1 in response to various stimuli. TAB1 activates TAK1 in TGF $\beta$ -mediated signaling. 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. Both TAB2 and TAB3 are important mediators of TAK1 activation in IL-1 and TNF signal transduction.

## CHROMOSOMAL LOCATION

Genetic locus: TAB3 (human) mapping to Xp21.2; Tab3 (mouse) mapping to X C1.

## SOURCE

TAB3 (D-9) is a mouse monoclonal antibody raised against amino acids 49-176 mapping near the N-terminus of TAB3 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG $_1$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TAB3 (D-9) is available conjugated to agarose (sc-166538 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166538 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166538 PE), fluorescein (sc-166538 FITC), Alexa Fluor<sup>®</sup> 488 (sc-166538 AF488), Alexa Fluor<sup>®</sup> 546 (sc-166538 AF546), Alexa Fluor<sup>®</sup> 594 (sc-166538 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-166538 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-166538 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-166538 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor<sup>®</sup> is a trademark of Molecular Probes, Inc., Oregon, USA

## RESEARCH USE

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

## APPLICATIONS

TAB3 (D-9) is recommended for detection of TAB3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TAB3 siRNA (h): sc-43548, TAB3 siRNA (m): sc-43549, TAB3 shRNA Plasmid (h): sc-43548-SH, TAB3 shRNA Plasmid (m): sc-43549-SH, TAB3 shRNA (h) Lentiviral Particles: sc-43548-V and TAB3 shRNA (m) Lentiviral Particles: sc-43549-V.

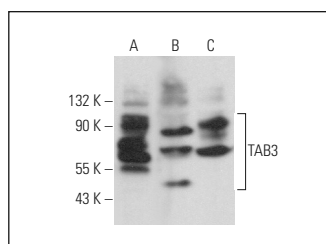
Molecular Weight of TAB3: 90 kDa.

Positive Controls: Hep G2 whole cell lysate: sc-2227, RAW 264.7 whole cell lysate: sc-2211 or KNRK whole cell lysate: sc-2214.

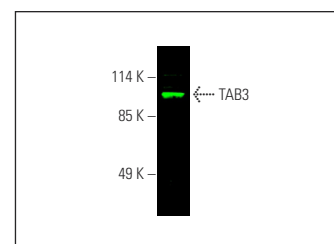
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



TAB3 (D-9): sc-166538. Western blot analysis of TAB3 expression in Hep G2 (A), RAW 264.7 (B) and KNRK (C) whole cell lysates.



TAB3 (D-9): sc-166538. Near-infrared western blot analysis of TAB3 expression in K-562 whole cell lysate. Blocked with UltraCruz<sup>®</sup> Blocking Reagent: sc-516214. Detection reagent used: m-IgG $\kappa$  BP-CFL 680: sc-516180.

## SELECT PRODUCT CITATIONS

- Chen, Y., et al. 2016. Loss of TAB3 expression by shRNA exhibits suppressive bioactivity and increased chemical sensitivity of ovarian cancer cell lines via the NF $\kappa$ B pathway. *Cell Prolif.* 49: 657-668.
- Xu, J., et al. 2017. Replication defective viral genomes exploit a cellular pro-survival mechanism to establish paramyxovirus persistence. *Nat. Commun.* 8: 799.
- Zhao, J., et al. 2018. TAB3 promotes human esophageal squamous cell carcinoma proliferation and invasion via the NF $\kappa$ B pathway. *Oncol. Rep.* 40: 2876-2885.
- Roshan-Milani, S., et al. 2022. miR-23b/TAB3/NF $\kappa$ B/p53 axis is involved in hippocampus injury induced by cerebral ischemia-reperfusion in rats: the protective effect of chlorogenic acid. *Biofactors* 48: 908-917.
- Lu, Z., et al. 2022. Tripartite motif 38 attenuates cardiac fibrosis after myocardial infarction by suppressing TAK1 activation via TAB2/3 degradation. *iScience* 25: 104780.

## STORAGE

Store at 4 $^{\circ}$  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) for detailed protocols and support products.