

# TAB2 (E-5): sc-398188

## 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.
3. Jiang, Z., et al. 2002. Interleukin-1 (IL-1) receptor-associated kinase-dependent IL-1-induced signaling complexes phosphorylate TAK1 and TAB2 at the plasma membrane and activate TAK1 in the cytosol. *Mol. Cell Biol.* 22: 7158-7167.

## CHROMOSOMAL LOCATION

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

## SOURCE

TAB2 (E-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 48-73 near the N-terminus of TAB2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TAB2 (E-5) is available conjugated to agarose (sc-398188 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398188 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398188 PE), fluorescein (sc-398188 FITC), Alexa Fluor® 488 (sc-398188 AF488), Alexa Fluor® 546 (sc-398188 AF546), Alexa Fluor® 594 (sc-398188 AF594) or Alexa Fluor® 647 (sc-398188 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398188 AF680) or Alexa Fluor® 790 (sc-398188 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398188 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## STORAGE

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

## APPLICATIONS

TAB2 (E-5) is recommended for detection of TAB2 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).

TAB2 (E-5) is also recommended for detection of TAB2 in additional species, including equine, canine, bovine and porcine.

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.

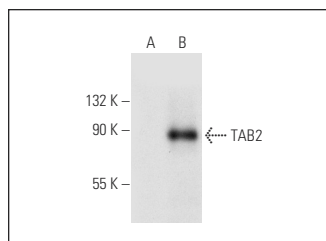
Molecular Weight of TAB2: 83 kDa.

Positive Controls: TAB2 (m): 293T Lysate: sc-123889 or NIH/3T3 whole cell lysate: sc-2210.

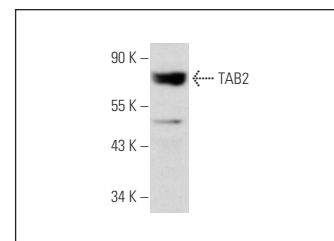
## RECOMMENDED SUPPORT REAGENTS

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™ Molecular Weight Standards: sc-2035, UltraCruz® 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® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



TAB2 (E-5): sc-398188. Western blot analysis of TAB2 expression in non-transfected: sc-117752 (A) and mouse TAB2 transfected: sc-123889 (B) 293T whole cell lysates.



TAB2 (E-5): sc-398188. Western blot analysis of TAB2 expression in NIH/3T3 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Gu, Z., et al. 2020. The SUMOylation of TAB2 mediated by TRIM60 inhibits MAPK/NF $\kappa$ B activation and the innate immune response. *Cell. Mol. Immunol.* E-published.

## RESEARCH USE

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