

TAB2 (m): 293T Lysate: sc-123889

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.

REFERENCES

1. Yamaguchi, K., Shirakabe, K., Shibuya, H., Irie, K., Oishi, I., Ueno, N., Taniguchi, T., Nishida, E. and Matsumoto, K. 1995. Identification of a member of the MAPKKK family as a potential mediator of TGF β signal transduction. *Science* 270: 2008-2011.
2. Shibuya, H., Yamaguchi, K., Shirakabe, K., Tonegawa, A., Gotoh, Y., Ueno, N., Irie, K., Nishida, E. and Matsumoto, K. 1996. TAB1: an activator of the TAK1 MAPKKK in TGF β signal transduction. *Science* 272: 1179-1182.
3. Ge, B., Gram, H., Di Padova, F., Huang, B., New, L., Ulevitch, R.J., Luo, Y. and Han, J. 2002. MAPKK-independent activation of p38 α mediated by TAB1-dependent autophosphorylation of p38 α . *Science* 295:1291-1294.
4. Jiang, Z., Ninomiya-Tsuji, J., Qian, Y., Matsumoto, K. and Li, X. 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.
5. Jin, G., Klika, A., Callahan, M., Faga, B., Danzig, J., Jiang, Z., Li, X., Stark, G.R., Harrington, J. and Sherf, B. 2004. Identification of a human NF κ B-activating protein, TAB3. *Proc. Natl. Acad. Sci. USA* 101: 2028-2033.

CHROMOSOMAL LOCATION

Genetic locus: Tab2 (mouse) mapping to 10 A1.

PRODUCT

TAB2 (m): 293T Lysate represents a lysate of mouse TAB2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20 $^{\circ}$ C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

TAB2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive TAB2 antibodies. Recommended use: 10-20 μ l per lane.

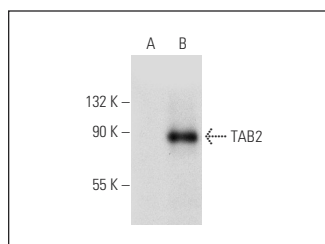
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

TAB2 (E-5): sc-398188 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse TAB2 expression in TAB2 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

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.

RESEARCH USE

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

PROTOCOLS

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