

TAPP1 (H-80): sc-50468

BACKGROUND

Tandem PH (Pleckstrin homology) domain-containing protein 1 (TAPP1) is a widely expressed cytoplasmic adaptor protein related to BAM32. Highest expression levels of TAPP1 are found in skeletal muscle, spleen, lung, thymus and placenta. Upon growth factor stimulation and activation of phosphoinositol 3-kinase, TAPP1 is recruited to the plasma membrane and accumulates in the F-actin-rich membrane ruffles. This recruitment occurs through the specific interaction of the TAPP1 C-terminal PH domain with phosphatidylinositol 3,4-bisphosphate. Syntrophins are responsible for regulating the localization of TAPP1, and together, this may regulate actin-mediated membrane ruffling and cytoskeletal reorganization. The overexpression of TAPP1, in the absence of Syntrophin overexpression, blocks the formation of circular ruffles. TAPP1 may also be involved in the activation of B and T cells.

REFERENCES

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2. Thomas, C.C., et al. 2001. Crystal structure of the phosphatidylinositol 3, 4-bisphosphate-binding Pleckstrin homology (PH) domain of tandem PH-domain-containing protein 1 (TAPP1): molecular basis of lipid specificity. *Biochem. J.* 358: 287-294.
3. Kimber, W.A., et al. 2002. Evidence that the tandem-Pleckstrin-homology-domain-containing protein TAPP1 interacts with Ptd(3,4)P₂ and the multi-PDZ-domain-containing protein MUPP1 *in vivo*. *Biochem. J.* 361: 525-536.
4. Marshall, A.J., et al. 2002. TAPP1 and TAPP2 are targets of phosphatidylinositol 3-kinase signaling in B cells: sustained plasma membrane recruitment triggered by the B cell antigen receptor. *Mol. Cell. Biol.* 22: 5479-5491.
5. Kimber, W.A., et al. 2003. Interaction of the protein tyrosine phosphatase PTPL1 with the PtdIns(3,4)P₂-binding adaptor protein TAPP1. *Biochem. J.* 376: 525-535.
6. Watt, S.A., et al. 2004. Detection of novel intracellular agonist responsive pools of phosphatidylinositol 3, 4-bisphosphate using the TAPP1 Pleckstrin homology domain in immunoelectron microscopy. *Biochem. J.* 377: 653-663.
7. Hogan, A., et al. 2004. The phosphoinositol 3, 4-bisphosphate-binding protein TAPP1 interacts with syntrophins and regulates actin cytoskeletal organization. *J. Biol. Chem.* 279: 53717-53724.

CHROMOSOMAL LOCATION

Genetic locus: PLEKHA1 (human) mapping to 10q26.13; Plekha1 (mouse) mapping to 7 F3.

SOURCE

TAPP1 (H-80) is a rabbit polyclonal antibody raised against amino acids 116-195 mapping within an internal region of TAPP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

TAPP1 (H-80) is recommended for detection of TAPP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

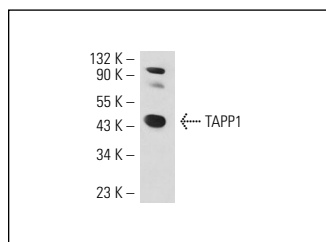
TAPP1 (H-80) is also recommended for detection of TAPP1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for TAPP1 siRNA (h): sc-63100, TAPP1 siRNA (m): sc-63101, TAPP1 shRNA Plasmid (h): sc-63100-SH, TAPP1 shRNA Plasmid (m): sc-63101-SH, TAPP1 shRNA (h) Lentiviral Particles: sc-63100-V and TAPP1 shRNA (m) Lentiviral Particles: sc-63101-V.

Molecular Weight of TAPP1: 45 kDa.

Positive controls: mouse skeletal muscle extract: sc-364250, Jurkat whole cell lysate: sc-2204 or TT whole cell lysate: sc-364195.

DATA



TAPP1 (H-80): sc-50468. Western blot analysis of TAPP1 expression in mouse skeletal muscle tissue extract.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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


 MONOS
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Try **TAPP1 (D-5): sc-374622**, our highly recommended monoclonal alternative to TAPP1 (H-80).