

TAPP1 (S-19): sc-54747



The Power to Question

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

1. Dowler, S., et al. 2000. Identification of Pleckstrin homology domain-containing proteins with novel phosphoinositide-binding specificities. *Biochem. J.* 351: 19-31.
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.

CHROMOSOMAL LOCATION

Genetic locus: PLEKHA1 (human) mapping to 10q26.13.

SOURCE

TAPP1 (S-19) is an affinity purified goat polyclonal antibody raised against a peptide 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.

Blocking peptide available for competition studies, sc-54747 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

TAPP1 (S-19) is recommended for detection of TAPP1 of 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).

Suitable for use as control antibody for TAPP1 siRNA (h): sc-63100; and as shRNA Plasmid control antibody for TAPP1 shRNA Plasmid (h): sc-63100-SH.

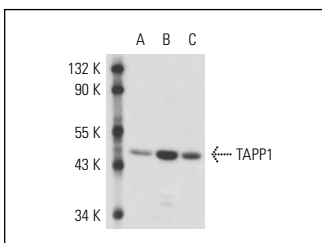
Molecular Weight of TAPP1: 45 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, TT whole cell lysate: sc-364195 or SHP-77 whole cell lysate: sc-364258.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TAPP1 (S-19): sc-54747. Western blot analysis of TAPP1 expression in TT (A), SHP-77 (B) and Jurkat (C) whole cell lysates.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **TAPP1 (D-5): sc-374622**, our highly recommended monoclonal alternative to TAPP1 (S-19).