

TAPP2 (D-2): sc-166593

BACKGROUND

Tandem PH (pleckstrin homology) domain-containing protein 2 (TAPP2) is a widely expressed cytoplasmic adaptor protein related to BAM32. Highest expression levels of TAPP2 are found in heart and kidney tissues. Upon growth factor stimulation and activation of phosphoinositol 3-kinase, TAPP2 is recruited to the plasma membrane and accumulates in F-Actin-rich membrane ruffles. This recruitment occurs through the specific interaction of the TAPP2 C-terminal PH domain with phosphatidylinositol 3,4-bisphosphate. TAPP2 is positively regulated by Fc γ RII and SHIP. The overexpression of TAPP2 increases NF-AT-dependent transcriptional activation after G cell Ag receptor ligation and increases the sustained phase of the calcium response. TAPP2 may play a role in the activation of B and T cells.

REFERENCES

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- 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.
- 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.
- 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.
- Krahn, A.K., et al. 2004. Two distinct waves of membrane-proximal B cell antigen receptor signaling differentially regulated by Src homology 2-containing inositol polyphosphate 5-phosphatase. *J. Immunol.* 172: 331-339.
- 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: PLEKHA2 (human) mapping to 8p11.22; Plekha2 (mouse) mapping to 8 A2.

SOURCE

TAPP2 (D-2) is a mouse monoclonal antibody raised against amino acids 121-180 mapping within an internal region of TAPP2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

TAPP2 (D-2) is recommended for detection of TAPP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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 TAPP2 siRNA (h): sc-63102, TAPP2 siRNA (m): sc-63103, TAPP2 shRNA Plasmid (h): sc-63102-SH, TAPP2 shRNA Plasmid (m): sc-63103-SH, TAPP2 shRNA (h) Lentiviral Particles: sc-63102-V and TAPP2 shRNA (m) Lentiviral Particles: sc-63103-V.

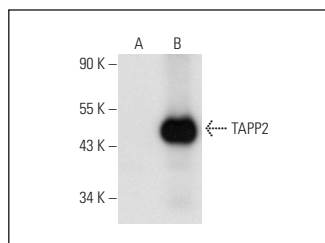
Molecular Weight of TAPP2: 47 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Ramos cell lysate: sc-2216 or TAPP2 (m): 293T Lysate: sc-123912.

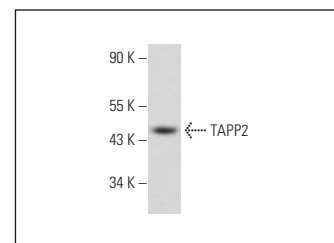
RECOMMENDED SUPPORT REAGENTS

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 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 κ BP-FITC: sc-516140 or m-IgG κ 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



TAPP2 (D-2): sc-166593. Western blot analysis of TAPP2 expression in non-transfected: sc-117752 (A) and mouse TAPP2 transfected: sc-123912 (B) 293T whole cell lysates.



TAPP2 (D-2): sc-166593. Western blot analysis of TAPP2 expression in Ramos whole cell lysate.

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.