SANTA CRUZ BIOTECHNOLOGY, INC.

TAPP2 (C-8): sc-271307

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 phosphotidylinositol 3,4-bisphosphate. TAPP2 is positively regulated by Fc γ RII and SHIP. The overexpression of TAPP2 increases NFAT-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

1. Dowler, S., et al. 2000. Identification of pleckstrin-homology-domain-containing proteins with novel phosphoinositide-binding specificities. Biochem. J. 351: 19-31.
2. 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.
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. 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.
5. 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.
6. 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 (C-8) is a mouse monoclonal antibody specific for an epitope mapping at the C-terminus of TAPP2 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-271307 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

TAPP2 (C-8) 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 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).

TAPP2 (C-8) is also recommended for detection of TAPP2 in additional species, including equine.

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.

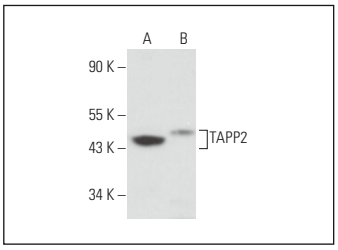
Molecular Weight of TAPP2: 47 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Ramos cell lysate: sc-2216 or RAW 264.7 whole cell lysate: sc-2211.

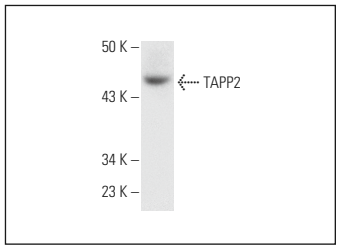
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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 (C-8): sc-271307. Western blot analysis of TAPP2 expression in Ramos (**A**) and RAW 264.7 (**B**) whole cell lysates.



TAPP2 (C-8): sc-271307. Western blot analysis of TAPP2 expression in HeLa whole cell lysate.

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.