

TAPP2 (A-7): sc-166351

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

- Dowler, S., et al. 2000. Identification of Pleckstrin-homology-domain-containing proteins with novel phosphoinositide-binding specificities. *Biochem. J.* 351: 19-31.
- 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 PTP1 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.

CHROMOSOMAL LOCATION

Genetic locus: PLEKHA2 (human) mapping to 8p11.22; Plekha2 (mouse) mapping to 8 A2.

SOURCE

TAPP2 (A-7) 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_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TAPP2 (A-7) is available conjugated to agarose (sc-166351 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166351 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166351 PE), fluorescein (sc-166351 FITC), Alexa Fluor[®] 488 (sc-166351 AF488), Alexa Fluor[®] 546 (sc-166351 AF546), Alexa Fluor[®] 594 (sc-166351 AF594) or Alexa Fluor[®] 647 (sc-166351 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-166351 AF680) or Alexa Fluor[®] 790 (sc-166351 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TAPP2 (A-7) 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), immunohistochemistry (including paraffin-embedded sections) (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.

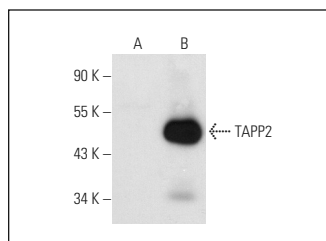
Molecular Weight of TAPP2: 47 kDa.

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

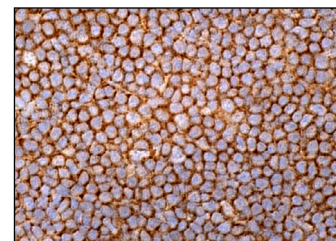
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



TAPP2 (A-7): sc-166351. Western blot analysis of TAPP2 expression in non-transfected: sc-117752 (A) and mouse TAPP2 transfected: sc-123912 (B) 293T whole cell lysates.



TAPP2 (A-7): sc-166351. Immunoperoxidase staining of formalin fixed, paraffin-embedded human tonsil tissue showing cytoplasmic staining of cells in germinal and non-germinal centers.

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.

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