

# TRAPPC4 (C-7): sc-390551

## BACKGROUND

TRAPPC4 (trafficking protein particle complex 4), also known as SBDN, TRS23, PTD009, CGI-104, HSPC172 (hematopoietic stem/progenitor cell protein 172) or SYNBINDIN, is a postsynaptic protein belonging to the TRAPPC4 subfamily of the TRAPP small subunits family of proteins. Expressed in neurons and localizing to the Golgi apparatus, TRAPPC4 is believed to be involved in vesicular transport from the endoplasmic reticulum (ER) to the Golgi, functioning as a component of the multisubunit transport protein particle (TRAPP) complex. Similar to other proteins involved in vesicular transport or synaptic function, TRAPPC4 contains a nonclassical PDZ domain, a TRAPPC1-like domain and a C-terminus that is similar to a short segment of RyR. Via its nonclassical PDZ domain, TRAPPC4 binds to the C-terminal EFYA motif of Syndecan-2, suggesting that TRAPPC4 may play an important role in dendritic spine morphogenesis through membrane-trafficking.

## REFERENCES

1. Ethell, I.M., et al. 2000. Synbindin, a novel Syndecan-2-binding protein in neuronal dendritic spines. *J. Cell Biol.* 151: 53-68.
2. Lai, C.H., et al. 2000. Identification of novel human genes evolutionarily conserved in *Caenorhabditis elegans* by comparative proteomics. *Genome Res.* 10: 703-713.
3. Simons, M., et al. 2001. Syndecan-4-mediated signalling. *Cell. Signal.* 13: 855-862.
4. Woods, A. 2001. Syndecans: transmembrane modulators of adhesion and matrix assembly. *J. Clin. Invest.* 107: 935-941.

## CHROMOSOMAL LOCATION

Genetic locus: TRAPPC4 (human) mapping to 11q23.3; Trappc4 (mouse) mapping to 9 A5.2.

## SOURCE

TRAPPC4 (C-7) is a mouse monoclonal antibody raised against amino acids 1-145 mapping at the N-terminus of TRAPPC4 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TRAPPC4 (C-7) is available conjugated to agarose (sc-390551 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390551 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390551 PE), fluorescein (sc-390551 FITC), Alexa Fluor® 488 (sc-390551 AF488), Alexa Fluor® 546 (sc-390551 AF546), Alexa Fluor® 594 (sc-390551 AF594) or Alexa Fluor® 647 (sc-390551 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390551 AF680) or Alexa Fluor® 790 (sc-390551 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## RESEARCH USE

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

## APPLICATIONS

TRAPPC4 (C-7) is recommended for detection of TRAPPC4 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).

Suitable for use as control antibody for TRAPPC4 siRNA (h): sc-96374, TRAPPC4 siRNA (m): sc-154587, TRAPPC4 shRNA Plasmid (h): sc-96374-SH, TRAPPC4 shRNA Plasmid (m): sc-154587-SH, TRAPPC4 shRNA (h) Lentiviral Particles: sc-96374-V and TRAPPC4 shRNA (m) Lentiviral Particles: sc-154587-V.

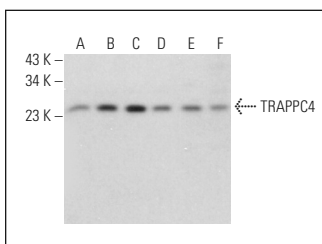
Molecular Weight of TRAPPC4: 24 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

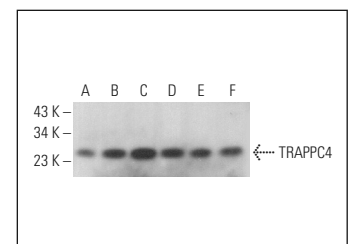
## RECOMMENDED SUPPORT REAGENTS

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



TRAPPC4 (C-7): sc-390551. Western blot analysis of TRAPPC4 expression in HeLa (A), PC-3 (B), Jurkat (C), MDA-MB-231 (D) and RAW 264.7 (E) whole cell lysates and mouse brain tissue extract (F).



TRAPPC4 (C-7): sc-390551. Western blot analysis of TRAPPC4 expression in HeLa (A), NIH/3T3 (B), T-47D (C), HL-60 (D) and RT-4 (E) whole cell lysates and rat testis tissue extract (F).

## SELECT PRODUCT CITATIONS

1. Wang, X., et al. 2020. Kalirin interacts with TRAPP and regulates Rab11 and endosomal recycling. *Cells* 9: 1132.
2. Ke, Y., et al. 2020. Trappc9 deficiency in mice impairs learning and memory by causing imbalance of dopamine D1 and D2 neurons. *Sci. Adv.* 6: eabb7781.

## STORAGE

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