

MAP-6D1 (F-6): sc-515352

BACKGROUND

MAP-6D1 (MAP6 domain-containing protein 1, STOP-like protein 21) is a 199 amino acid mammalian neuronal protein belonging to the STOP family. Found primarily as a part of the Golgi apparatus membrane, MAP-6D1 interacts with calmodulin and localizes to microtubules in the cytoskeleton. Calmodulin is involved in the genetic pathway that has a key role in efficient mitosis. This process is believed to be mediated and enhanced by the palmitoylation of cysteine residues near the N-terminus. Palmitoylation helps increase the hydrophobicity of proteins and enhances their membrane association. Palmitoylation also has a significant role in the subcellular trafficking of proteins between membrane compartments, as well as in modulating protein-protein interactions. These processes indicate that MAP-6D1 is highly involved with Golgi and microtubule stabilizing activity.

REFERENCES

1. Bosc, C., Cronk, J.D., Pirollet, F., Watterson, D.M., Haiech, J., Job, D. and Margolis, R.L. 1996. Cloning, expression, and properties of the microtubule-stabilizing protein STOP. *Proc. Natl. Acad. Sci. USA* 93: 2125-2130.
2. Baratier, J., Peris, L., Brocard, J., Gory-Faure, S., Dufour, F., Bosc, C., Fourest-Lieuvin, A., Blanchoin, L., Salin, P., Job, D. and Andrieux, A. 2006. Phosphorylation of microtubule-associated protein STOP by calmodulin kinase II. *J. Biol. Chem.* 281: 19561-19569.
3. Gory-Faure, S., Windscheid, V., Bosc, C., Peris, L., Proietto, D., Franck, R., Denarier, E., Job, D. and Andrieux, A. 2006. STOP-like protein 21 is a novel member of the STOP family, revealing a Golgi localization of STOP proteins. *J. Biol. Chem.* 281: 28387-28396.

CHROMOSOMAL LOCATION

Genetic locus: MAP6D1 (human) mapping to 3q27.1; Map6d1 (mouse) mapping to 16 A3.

SOURCE

MAP-6D1 (F-6) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 58-77 within an internal region of MAP-6D1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MAP-6D1 (F-6) is available conjugated to agarose (sc-515352 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515352 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515352 PE), fluorescein (sc-515352 FITC), Alexa Fluor[®] 488 (sc-515352 AF488), Alexa Fluor[®] 546 (sc-515352 AF546), Alexa Fluor[®] 594 (sc-515352 AF594) or Alexa Fluor[®] 647 (sc-515352 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515352 AF680) or Alexa Fluor[®] 790 (sc-515352 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515352 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

MAP-6D1 (F-6) is recommended for detection of MAP-6D1 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 MAP-6D1 siRNA (h): sc-78086, MAP-6D1 siRNA (m): sc-149253, MAP-6D1 shRNA Plasmid (h): sc-78086-SH, MAP-6D1 shRNA Plasmid (m): sc-149253-SH, MAP-6D1 shRNA (h) Lentiviral Particles: sc-78086-V and MAP-6D1 shRNA (m) Lentiviral Particles: sc-149253-V.

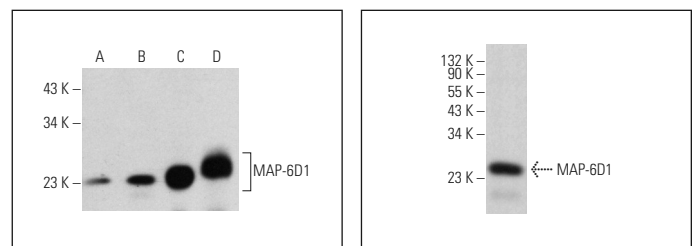
Molecular Weight of MAP-6D1: 21 kDa.

Positive Controls: mouse brain extract: sc-2253, MCF7 whole cell lysate: sc-2206 or T-47D cell lysate: sc-2293.

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



MAP-6D1 (F-6): sc-515352. Western blot analysis of MAP-6D1 expression in MCF7 (A) and T-47D (B) whole cell lysates and mouse brain (C) and human brain (D) tissue extracts.

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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