

MAST1 (L-20): sc-55848

BACKGROUND

Syntrophin is an adapter protein that functions to bind certain signaling molecules to the dystrophin-associated protein complex. This complex connects the extracellular matrix to the intracellular cytoskeleton for construction and maintenance of the postsynaptic structures in the neuromuscular junction and the central nervous system. Microtubule-associated serine/threonine-protein kinase 1 (MAST1) is a member of the microtubule-associated serine/threonine kinase family and is involved in linking the dystrophin/utrophin network with microtubule filaments via Syntrophin.

REFERENCES

- Lumeng, C., Phelps, S., Crawford, G.E., Walden, P.D., Barald, K. and Chamberlain, J.S. 1999. Interactions between β 2-Syntrophin and a family of microtubule-associated serine/threonine kinases. *Nat. Neurosci.* 2: 611-617.
- Yano, R., Yap, C.C., Yamazaki, Y., Muto, Y., Kishida, H., Okada, D. and Hashikawa, T. 2003. Sast124, a novel splice variant of Syntrophin-associated serine/threonine kinase (SAST), is specifically localized in the restricted brain regions. *Neuroscience* 117: 373-381.
- Valiente, M., Andrés-Pons, A., Gomar, B., Torres, J., Gil, A., Tapparel, C., Antonarakis, S.E. and Pulido, R. 2005. Binding of PTEN to specific PDZ domains contributes to PTEN protein stability and phosphorylation by microtubule-associated serine/threonine kinases. *J. Biol. Chem.* 280: 28936-28943.
- Sun, L., Gu, S., Li, X., Sun, Y., Zheng, D., Yu, K., Ji, C., Tang, R., Xie, Y. and Mao, Y. 2006. Identification of a novel human MAST4 gene, a new member of the microtubule associated serine-threonine kinase family. *Mol. Biol.* 40: 808-815.
- De Angelis, P.M., Svendsrud, D.H., Kravik, K.L. and Stokke, T. 2006. Cellular response to 5-fluorouracil (5-FU) in 5-FU-resistant colon cancer cell lines during treatment and recovery. *Mol. Cancer* 5: 20.

CHROMOSOMAL LOCATION

Genetic locus: Mast1 (mouse) mapping to 8 C3.

SOURCE

MAST1 (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MAST1 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-55848 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

MAST1 (L-20) is recommended for detection of MAST1 of mouse and rat origin by Western Blotting (starting dilution 1:200, 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).

MAST1 (L-20) is also recommended for detection of MAST1 in additional species, including canine and bovine.

Suitable for use as control antibody for MAST1 siRNA (m): sc-149287, MAST1 shRNA Plasmid (m): sc-149287-SH and MAST1 shRNA (m) Lentiviral Particles: sc-149287-V.

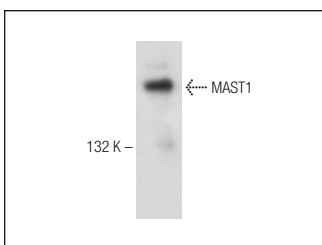
Molecular Weight of MAST1: 171 kDa.

Positive Controls: rat brain extract: sc-2392.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



MAST1 (L-20): sc-55848. Western blot analysis of MAST1 expression in rat brain tissue extract.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.