

SAST124 (21): sc-52725

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. Syntrophin-associated Serine/Threonine kinase-124 (SAST124) is a member of the microtubule-associated Serine/Threonine kinases family that functions as a signaling molecule for Syntrophin. SAST124 is expressed in neurons of the subventricular zone and granule cells of the olfactory bulb, Islands of Calleja, hippocampal dentate gyrus and cerebellum where it localizes to the nucleus. SAST124 may be involved in transcriptional regulation for the features commonly shared by these neurons.

REFERENCES

1. Peters, M.F., Adams, M.E. and Froehner, S.C. 1997. Differential association of Syntrophin pairs with the Dystrophin complex. *J. Cell Biol.* 138: 81-93.
2. 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-asso Serine/Threonine kinases. *Nat. Neurosci.* 2: 611-617.
3. Ort, T., Maksimova, E., Dirx, R., Kachinsky, A.M., Berghs, S., Froehner, S.C. and Solimena, M. 2001. The receptor tyrosine phosphatase-like protein ICA512 binds the PDZ domains of β 2-syntrophin and nNOS in pancreatic β cells. *Eur. J. Cell Biol.* 79: 621-630.
4. 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.
5. Valiente, M., andres-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.

SOURCE

SAST124 (21) is a mouse monoclonal antibody raised against amino acids 618-1094 of SAST124 of rat origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SAST124 (21) is recommended for detection of SAST124 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Molecular Weight of SAST124: 171 kDa.

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.

PROTOCOLS

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