SANTA CRUZ BIOTECHNOLOGY, INC.

BM88 (T-14): sc-138750

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The Power to Question

BACKGROUND

BM88, also known as CEND1 (cell cycle exit and neuronal differentiation protein 1), is a 149 amino acid protein that belongs to the CEND1 familly. Involved in neuroblastoma cell differentiation, BM88 is a single-pass type IV membrane protein that is neuron specific. It is suggested that BM88 forms a dimer of two identical polypeptides linked by disulfide bridges. BM88 has a central proline-rich region containing four PxxP motifs, which typically bind SRC homology-3 (SH3) domains, as well as a putative C-terminal transmembrane region, and several potential sites for N-glycosylation, myristoylation and phosphorylation. It is also suggested that a novel signaling mechanism exists by which BM88 interferes with calcium release from inositol 1,4,5-trisphosphate-sensitive stores and exerts anti-proliferative and anti-apoptotic functions. BM88 is an important molecular target for HDAC inhibition, and transcription of BM88 is induced by trichostatin-A.

REFERENCES

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2. Mamalaki, A., et al. 1995. The BM88 antigen, a novel neuron-specific molecule, enhances the differentiation of mouse neuroblastoma cells. J. Biol. Chem. 270: 14201-14208.
3. Online Mendelian Inheritance in Man, OMIM™. 2003. Johns Hopkins University, Baltimore, MD. MIM Number: 608213. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Kawaji, H., et al. 2008. Hidden layers of human small RNAs. BMC Genomics 9: 157.
5. Politis, P.K., et al. 2008. BM88/Cend1 is involved in histone deacetylase inhibition-mediated growth arrest and differentiation of neuroblastoma cells. FEBS Lett. 582: 741-748.
6. Katsimpardi, L., et al. 2008. BM88/Cend1 expression levels are critical for proliferation and differentiation of subventricular zone-derived neural precursor cells. Stem Cells 26: 1796-1807.
7. Masgrau, R., et al. 2009. BM88/Cend1 regulates stimuli-induced intracellular calcium mobilization. Neuropharmacology 56: 598-609.
8. Sergaki, M.C., et al. 2010. Impaired cerebellar development and deficits in motor coordination in mice lacking the neuronal protein BM88/Cend1. Mol. Cell. Neurosci. 44: 15-29.

CHROMOSOMAL LOCATION

Genetic locus: CEND1 (human) mapping to 11p15.5; Cend1 (mouse) mapping to 7 F5.

SOURCE

BM88 (T-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of BM88 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138750 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

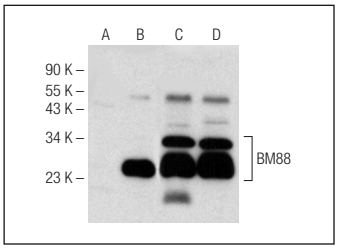
BM88 (T-14) is recommended for detection of BM88 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for BM88 siRNA (h): sc-96840, BM88 siRNA (m): sc-141717, BM88 shRNA Plasmid (h): sc-96840-SH, BM88 shRNA Plasmid (m): sc-141717-SH, BM88 shRNA (h) Lentiviral Particles: sc-96840-V and BM88 shRNA (m) Lentiviral Particles: sc-141717-V.

Molecular Weight of BM88: 23 kDa.

Positive Controls: BM88 (m): 293T Lysate: sc-126507, mouse brain extract: sc-2253 or mouse cerebellum extract: sc-2403.

DATA



BM88 (T-14): sc-138750. Western blot analysis of BM88 expression in non-transfected: sc-117752 (**A**) and mouse BM88 transfected: sc-126507 (**B**) 293T whole cell lysates and mouse brain (**C**) and mouse cerebellum (**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.

PROTOCOLS

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