

BM88 (G-7): sc-398447

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 family. 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

1. Patsavoudi, E., et al. 1991. Purification and characterization of neuron-specific surface antigen defined by monoclonal antibody BM88. *J. Neurochem.* 56: 782-788.
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.

CHROMOSOMAL LOCATION

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

SOURCE

BM88 (G-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 80-95 within a cytoplasmic domain of BM88 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-398447 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

BM88 (G-7) is recommended for detection of BM88 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 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.

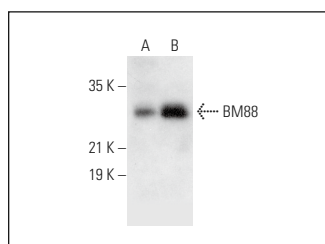
Positive Controls: mouse brain extract: sc-2253 or rat brain extract: sc-2392.

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 L-Agarose: sc-2336 (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



BM88 (G-7): sc-398447. Western blot analysis of BM88 expression in mouse brain (A) and rat brain (B) tissue extracts.

RESEARCH USE

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