CD-MPR (m): 293T Lysate: sc-119090



The Power to Question

BACKGROUND

CD-MPR (cation-dependent mannose-6-phosphate receptor) is an oligomeric transmembrane protein that plays a critical role in the intracellular delivery of phosphorylated lysosomal enzymes from the *trans*-Golgi network (TGN). Intracellular trafficking of CD-MPR is mediated by sorting signals in its 67 amino acid cytoplasmic tail which prevent it from entering the lysosome where it would be degraded. CD-MPR is predominantly expressed in mouse testicular germ cells and shows differentiated expression during maturation of rat spermatozoa. Increased expression of CD-MPR in Alzheimer's disease and the location of the CD-MPR gene next to a region on chromosome 12 which is possibly linked to the disease indicate that CD-MPR may play a role in Alzheimer's disease.

REFERENCES

- Sleat, D.E. and Lobel, P. 1997. Ligand binding specificities of the two mannose 6-phosphate receptors. J. Biol. Chem. 272: 731-738.
- Schweizer, A., Kornfeld, S. and Rohrer, J. 1997. Proper sorting of the cation-dependent mannose 6-phosphate receptor in endosomes depends on a pair of aromatic amino acids in its cytoplasmic tail. Proc. Natl. Acad. Sci. USA 94: 14471-14476.
- 3. Olson, L.J., Hancock, M.K., Dix, D., Kim, J.J. and Dahms, N.M. 1999. Mutational analysis of the binding site residues of the bovine cation-dependent mannose 6-phosphate receptor. J. Biol. Chem. 274: 36905-36911.
- 4. Chayko, C.A. and Orgebin-Crist, M.C. 2000. Targeted disruption of the cation-dependent or cation-independent mannose 6-phosphate receptor does not decrease the content of acid glycosidases in the acrosome. J. Androl. 21: 944-953.
- Belmonte, S.A., Romano, P.S., Fornés, W.M. and Sosa, M.A. 2000. Changes in distribution of phosphomannosyl receptors during maturation of rat spermatozoa. Biol. Reprod. 63: 1172-1178.
- Stöckli, J., Höning, S. and Rohrer, J. 2004. The acidic cluster of the CK2 site of the cation-dependent mannose 6-phosphate receptor (CD-MPR) but not its phosphorylation is required for GGA1 and AP-1 binding. J. Biol. Chem. 279: 23542-23549.

CHROMOSOMAL LOCATION

Genetic locus: M6pr (mouse) mapping to 6 F1.

PRODUCT

CD-MPR (m): 293T Lysate represents a lysate of mouse CD-MPR transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

CD-MPR (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive CD-MPR antibodies. Recommended use: 10-20 μ l per lane

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PROTOCOLS

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com