SANTA CRUZ BIOTECHNOLOGY, INC.

GS28 (m): 293T Lysate: sc-125426

BACKGROUND

In eukaryotic cells, the Golgi apparatus receives newly synthesized proteins from the endoplasmic reticulum and delivers them after covalent modification to their destination in the cell. For membrane-directed proteins this process is believed to be carried out via vesicular transport. Correct vesicular transport is determined by specific pairing of vesicle-associated SNAREs (v-SNAREs) with those on the target membrane (t-SNAREs). This complex then recruits soluble NSF attachment proteins (SNAPs) and N-ethylmaleimide-sensitive factor (NSF) to form the highly stable SNAP receptor (SNARE) complex. The formation of a SNARE complex pulls the vesicle and target membranes together and may provide the energy to drive the fusion of the lipid bilayers. Golgi SNARE 27 kDa (GS27) and GS28 belong to the SNARE protein family and are important trafficking proteins between the endoplasmic reticulum and the Golgi and between Golgi subcompartments. GS27 and GS28 both exist as cytoplasmically oriented integral membrane proteins. The human GS27 gene, which maps to chromosome 17q21, is located near a locus implicated in familial essential hypertension, indicating that it is a potential candidate gene for this disease. The human GS28 gene maps to chromosome 17q11.

REFERENCES

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3. Lowe, S.L., Peter, F., Subramaniam, V.N., Wong, S.H. and Hong, W. 1997. A SNARE involved in protein transport through the Golgi apparatus. Nature 389: 881-884.
4. Bui, T.D., Levy, E.R., Subramaniam, V.N., Lowe, S.L. and Hong, W. 1999. cDNA characterization and chromosomal mapping of human Golgi SNARE GS27 and GS28 to chromosome 17. Genomics 57: 285-288.
5. Bentz, J. and Mittal, A. 2000. Deployment of membrane fusion protein domains during fusion. Cell Biol. Int. 24: 819-938.
6. Gmachl, M.J. and Wimmer, C. 2001. Sequential involvement of p115, SNAREs, and Rab proteins in intra-Golgi protein transport. J. Biol. Chem. 276: 18178-18184.
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CHROMOSOMAL LOCATION

Genetic locus: Gosr1 (mouse) mapping to 11 B5.

PRODUCT

GS28 (m): 293T Lysate represents a lysate of mouse GS28 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.

APPLICATIONS

GS28 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive GS28 antibodies. Recommended use: 10-20 µl per lane.

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

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.