SANTA CRUZ BIOTECHNOLOGY, INC.

GS28 (L-15): sc-15271

The Power to Question

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. 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 17q11.2.

REFERENCES

1. Nagahama, M., et al. 1996. A v-SNARE implicated in intra-Golgi transport. J. Cell Biol. 133: 507-516.
2. Lowe, S.L., et al. 1997. A SNARE involved in protein transport through the Golgi apparatus. Nature 389: 881-884.
3. Hay, J.C., et al. 1997. Protein interactions regulating vesicle transport between the endoplasmic reticulum and Golgi apparatus in mammalian cells. Cell 89: 149-158.
4. Bui, T.D., et al. 1999. cDNA characterization and chromosomal mapping of human golgi SNARE GS27 and GS28 to chromosome 17. Genomics 57: 285-288.

CHROMOSOMAL LOCATION

Genetic locus: GOSR1 (human) mapping to 17q11.2; Gosr1 (mouse) mapping to 11 B5.

SOURCE

GS28 (L-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GS28 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-15271 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

GS28 (L-15) is recommended for detection of GS28 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

GS28 (L-15) is also recommended for detection of GS28 in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for GS28 siRNA (h): sc-41306, GS27 siRNA (m): sc-41305, GS28 shRNA Plasmid (h): sc-41306-SH, GS27 shRNA Plasmid (m): sc-41305-SH, GS28 shRNA (h) Lentiviral Particles: sc-41306-V and GS27 shRNA (m) Lentiviral Particles: sc-41305-V.

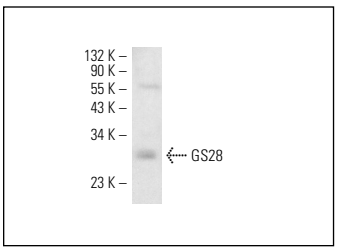
Molecular Weight of GS28: 28 kDa.

Positive Controls: WEHI-231 whole cell lysate: sc-2213, JAR cell lysate: sc-2276 or Tk-1 whole cell lysate: sc-364798.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



GS28 (L-15): sc-15271. Western blot analysis of GS28 expression in WEHI-231 whole cell lysate.

RESEARCH USE

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