SANTA CRUZ BIOTECHNOLOGY, INC.

GS27 (F-6): sc-390261

SANTA CRUZ BIOTECHNOLOGY

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 17q21.32, 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

1. Nagahama, M., Orci, L., Ravazzola, M., Amherdt, M., Lacomis, L., Tempst, P., Rothman, J.E. and Sollner, T.H. 1996. A v-SNARE implicated in intra-Golgi transport. J. Cell Biol. 133: 507-516.
2. 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.
3. Hay, J.C., Chao, D.S., Kuo, C.S. and Scheller, R.H. 1997. Protein interactions regulating vesicle transport between the endoplasmic reticulum and Golgi apparatus in mammalian cells. Cell 89: 149-158.

CHROMOSOMAL LOCATION

Genetic locus: GOSR2 (human) mapping to 17q21.32; Gosr2 (mouse) mapping to 11 E1.

SOURCE

GS27 (F-6) is a mouse monoclonal antibody raised against amino acids 68-212 mapping at the C-terminus of GS27 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GS27 (F-6) is available conjugated to agarose (sc-390261 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390261 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390261 PE), fluorescein (sc-390261 FITC), Alexa Fluor® 488 (sc-390261 AF488), Alexa Fluor® 546 (sc-390261 AF546), Alexa Fluor® 594 (sc-390261 AF594) or Alexa Fluor® 647 (sc-390261 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390261 AF680) or Alexa Fluor® 790 (sc-390261 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

GS27 (F-6) is recommended for detection of GS27 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 GS27 siRNA (h): sc-41304, GS27 siRNA (m): sc-41305, GS27 shRNA Plasmid (h): sc-41304-SH, GS27 shRNA Plasmid (m): sc-41305-SH, GS27 shRNA (h) Lentiviral Particles: sc-41304-V and GS27 shRNA (m) Lentiviral Particles: sc-41305-V.

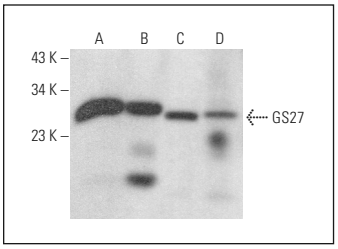
Molecular Weight of GS27: 27 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, MDA-MB-435S whole cell lysate: sc-364184 or human stomach extract: sc-363780.

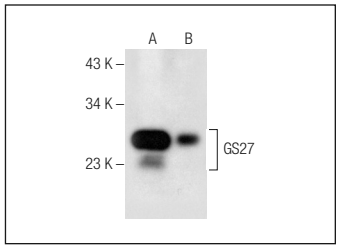
RECOMMENDED SUPPORT REAGENTS

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 A/G PLUS-Agarose: sc-2003 (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



GS27 (F-6): sc-390261. Western blot analysis of GS27 expression in MDA-MB-435S (**A**), HOS (**B**) and NIH/3T3 (**C**) whole cell lysates and rat stomach tissue extract (**D**).



GS27 (F-6): sc-390261. Western blot analysis of GS27 expression in MDA-MB-435S whole cell lysate (**A**) and human stomach tissue extract (**B**).

STORAGE

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

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.