SANTA CRUZ BIOTECHNOLOGY, INC.

GS28 (F-11): sc-271551

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, 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.

CHROMOSOMAL LOCATION

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

SOURCE

GS28 (F-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-33 at the N-terminus of GS28 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GS28 (F-11) is available conjugated to agarose (sc-271551 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271551 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271551 PE), fluorescein (sc-271551 FITC), Alexa Fluor® 488 (sc-271551 AF488), Alexa Fluor® 546 (sc-271551 AF546), Alexa Fluor® 594 (sc-271551 AF594) or Alexa Fluor® 647 (sc-271551 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271551 AF680) or Alexa Fluor® 790 (sc-271551 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-271551 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

PROTOCOLS

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

APPLICATIONS

GS28 (F-11) is recommended for detection of GS28 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), immunohistochemistry (including paraffin-embedded sections) (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 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.

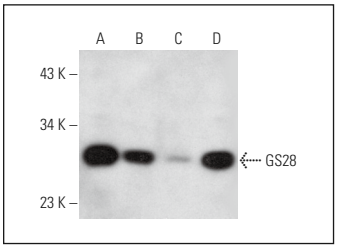
Molecular Weight of GS28: 28 kDa.

Positive Controls: JEG-3 whole cell lysate: sc-364255, HEK293 whole cell lysate: sc-45136 or MIA PaCa-2 cell lysate: sc-2285.

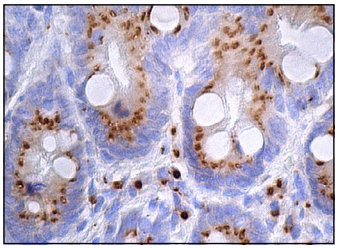
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



GS28 (F-11): sc-271551. Western blot analysis of GS28 expression in HEK293 (**A**), JEG-3 (**B**), WEHI-231 (**C**) and MIA PaCa-2 (**D**) whole cell lysates.



GS28 (F-11): sc-271551. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Wang, Y., et al. 2020. Cross-talks of glycosylphosphatidylinositol biosynthesis with glycosphingolipid biosynthesis and ER-associated degradation. Nat. Commun. 11: 860.

RESEARCH USE

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