SANTA CRUZ BIOTECHNOLOGY, INC.

Golgi Marker (AE-6): sc-58770

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Golgi apparatus is an organelle present in all eukaryotic cells that forms a part of the endomembrane system. The primary function of the Golgi apparatus is to process and package macromolecules synthesized by the cell for exocytosis or use within the cell. The Golgi is made up of a stack of flattened, membrane-bound sacs known as cisternae, with three functional regions: the *cis* face, medial region and *trans* face. Each region consists of various enzymes that selectively modify the macromolecules passing though them, depending on where they are destined to reside. Several spherical vesicles that have budded off of the Golgi are present surrounding the main cisternae. The Golgi tends to be more pronounced and numerous in cells that make and secrete many substances such as plasma B cells. Golgi markers are important in biology research as they aid in the behavioral and functional analysis of this dynamic organelle.

REFERENCES

1. Sommers, L.W., et al. 1982. Transport of sugar nucleotides into rat liver Golgi. A new Golgi marker activity. J. Biol. Chem. 257: 10811-10817.
2. Eriksson, L.C., et al. 1983. Isolation and characterization of endoplasmic reticulum and Golgi apparatus from hepatocyte nodules in male Wistar rats. Cancer Res. 43: 3335-3347.
3. Balch, W.E., et al. 1985. Characterization of protein transport between Golgi apparatus: asymmetric properties of donor and acceptor activities in a cell-free system. Arch. Biochem. Biophys. 240: 413-425.
4. Morre, D.J., et al. 1985. Dictyosome-like structures from guinea-pig testes lack galactosyltransferase, a Golgi apparatus marker. Cell Tissue Res. 240: 35-40.
5. Moriyama, Y., et al. 1989. H^+-translocating ATPase in Golgi apparatus. Characterization as vacuolar H^+-ATPase and its subunit structures. J. Biol. Chem. 264: 18445-18450.

SOURCE

Golgi Marker (AE-6) is a mouse monoclonal antibody rasied against SU-DHL-1 large cell lymphoma 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.

Golgi Marker (AE-6) is available conjugated to agarose (sc-58770 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-58770 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-58770 PE), fluorescein (sc-58770 FITC), Alexa Fluor® 488 (sc-58770 AF488), Alexa Fluor® 546 (sc-58770 AF546), Alexa Fluor® 594 (sc-58770 AF594) or Alexa Fluor® 647 (sc-58770 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-58770 AF680) or Alexa Fluor® 790 (sc-58770 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

Golgi Marker (AE-6) is recommended for detection of Golgi Zone of human origin by 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 flow cytometry (1 µg per 1 x 10^6 cells).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) 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. 2) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

SELECT PRODUCT CITATIONS

1. Cotán, D., et al. 2011. Secondary coenzyme Q_{10} deficiency triggers mitochondria degradation by mitophagy in MELAS fibroblasts. FASEB J. 25: 2669-2687.
2. De la Mata, M., et al. 2012. Recovery of MERRF fibroblasts and cybrids pathophysiology by coenzyme Q_{10}. Neurotherapeutics 9: 446-463.
3. Pedram, A., et al. 2012. DHHC-7 and -21 are palmitoylacyltransferases for sex steroid receptors. Mol. Biol. Cell 23: 188-199.
4. Li, H., et al. 2012. Differential fucosyltransferase IV expression in squamous carcinoma cells is regulated by promoter methylation. Cell. Mol. Biol. Lett. 17: 206-216.
5. Rodríguez-Tirado, C., et al. 2012. *Neisseria gonorrhoeae* induced disruption of cell junction complexes in epithelial cells of the human genital tract. Microbes Infect. 14: 290-300.
6. de la Mata, M., et al. 2015. Pharmacological chaperones and coenzyme Q_{10} treatment improves mutant β-glucocerebrosidase activity and mitochondrial function in neuronopathic forms of Gaucher disease. Sci. Rep. 5: 10903.
7. Suárez-Rivero, J.M., et al. 2018. Intracellular cholesterol accumulation and coenzyme Q_{10} deficiency in familial hypercholesterolemia. Biochim. Biophys. Acta Mol. Basis Dis. 1864: 3697-3713.
8. Wang, R., et al. 2019. Influenza M2 protein regulates MAVS-mediated signaling pathway through interacting with MAVS and increasing Ros production. Autophagy 15: 1163-1181.
9. Sharma, N., et al. 2020. Distinct roles of structure-specific endonucleases EEPD1 and metnase in replication stress responses. NAR Cancer 2: zcaa008.

RESEARCH USE

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