SANTA CRUZ BIOTECHNOLOGY, INC.

golgin 97 (CDFX): sc-59820

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The GRIP family member, golgin 97, is a *trans*-Golgi network peripheral membrane protein with an extensive coiled-coil structure (67% α-helical content) and a C-terminal GRIP domain. Golgin 97 localizes exclusively on the cytoplasmic face of the Golgi and can form homodimers. Binding of golgin 97 to the Golgi membrane is mediated by the G protein family member, Arl1. Golgin 97 acts as an essential player to the cell in the form of a tethering molecule associating with tubulovesicular carriers during the trafficking from the *trans*-Golgi network to the recycling endosome and/or early endosome. During poxvirus infection, golgin 97 accumulates at the site of viral replication and is incorporated into virions. It associates with the insoluble fraction of the virus core protein, playing a significant role in virus replication and maturation of the virus membrane and core protein. Golgin 97 takes on a rod-like shape and, although it seemingly lacks a transmembrane domain, it protrudes from the surface of the virion envelope.

CHROMOSOMAL LOCATION

Genetic locus: GOLGA1 (human) mapping to 9q33.3; Golga1 (mouse) mapping to 2 B.

SOURCE

golgin 97 (CDFX) is a mouse monoclonal antibody raised against full length golgin 97 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.

golgin 97 (CDFX) is available conjugated to agarose (sc-59820 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-59820 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-59820 PE), fluorescein (sc-59820 FITC), Alexa Fluor® 488 (sc-59820 AF488), Alexa Fluor® 546 (sc-59820 AF546), Alexa Fluor® 594 (sc-59820 AF594) or Alexa Fluor® 647 (sc-59820 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-59820 AF680) or Alexa Fluor® 790 (sc-59820 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

golgin 97 (CDFX) is recommended for detection of golgin 97 of broad species 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), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for golgin 97 siRNA (h): sc-75162, golgin 97 siRNA (m): sc-75163, golgin 97 shRNA Plasmid (h): sc-75162-SH, golgin 97 shRNA Plasmid (m): sc-75163-SH, golgin 97 shRNA (h) Lentiviral Particles: sc-75162-V and golgin 97 shRNA (m) Lentiviral Particles: sc-75163-V.

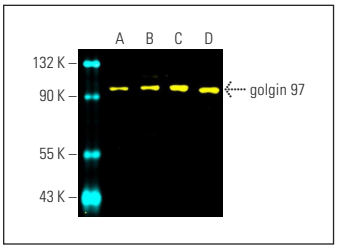
Molecular Weight of golgin 97: 97 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or T-47D cell lysate: sc-2293.

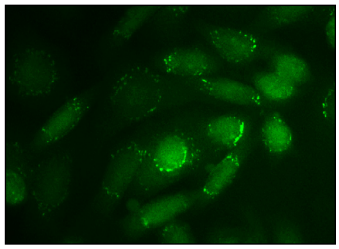
STORAGE

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

DATA



golgin 97 (CDFX) Alexa Fluor® 488: sc-59820 AF488. Direct fluorescent western blot analysis of golgin 97 expression in Hep G2 (**A**), HeLa (**B**), T-47D (**C**) and SW480 (**D**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor® 647: sc-516791.



golgin 97 (CDFX) Alexa Fluor® 488: sc-59820 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing Golgi apparatus localization. Blocked with UltraCruz® Blocking Reagent: sc-516214.

SELECT PRODUCT CITATIONS

1. Castino, R., et al. 2011. Chelation of lysosomal iron protects dopaminergic SH-SY5Y neuroblastoma cells from hydrogen peroxide toxicity by precluding autophagy and Akt dephosphorylation. Toxicol. Sci. 123: 523-541.
2. Bronzini, M., et al. 2012. The US16 gene of human cytomegalovirus is required for efficient viral infection of endothelial and epithelial cells. J. Virol. 86: 6875-6888.
3. Zadravec, P., et al. 2016. Development of recombinant *Lactococcus lactis* displaying albumin-binding domain variants against Shiga toxin 1 B subunit. PLoS ONE 11: e0162625.
4. Luganini, A., et al. 2017. Loss of the human cytomegalovirus US16 protein abrogates virus entry into endothelial and epithelial cells by reducing the virion content of the pentamer. J. Virol. 91: e00205-17.
5. Hendrickx, G., et al. 2018. Conditional mouse models support the role of SLC39A14 (ZIP14) in hyperostosis cranialis interna and in bone homeostasis. PLoS Genet. 14: e1007321.
6. Follo, C., et al. 2019. Amino acid response by halofuginone in cancer cells triggers autophagy through proteasome degradation of mTOR. Cell Commun. Signal. 17: 39.
7. Ravodina, A.M., et al. 2020. Facile cholesterol loading with a new probe ezFlux allows for streamlined cholesterol efflux assays. ACS Omega 5: 23289-23298.
8. Guo, R., et al. 2021. A swine arterivirus deubiquitinase stabilizes two major envelope proteins and promotes production of viral progeny. PLoS Pathog. 17: e1009403.

RESEARCH USE

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