SANTA CRUZ BIOTECHNOLOGY, INC.

GRASP65 (C-20): sc-19481

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Golgi apparatus is a highly complex organelle comprised of a stack of cisternal membranes on the secretory pathway from the ER to the cell surface. The structure is maintained by an exoskeleton or Golgi matrix constructed from a family of coiled-coil protein, the golgins and other peripheral membrane components such as GRASP55 and GRASP65. GRASP55 (Golgi reassembly stacking protien or p59) is a component of the Golgi stacking machinery. GRASP55 is highly homologous to GRASP65 and contains two PDZ domains. GRASP55 is myristoylated and palmitoylated. Unlike GRASP65, GRASP55 does not have detectable binding with the vesicle docking protein GM130 and is located on the medial-Golgi rather than *cis*-Golgi. Both GRASP55 and GRASP65 function in the stacking of Golgi cisternae. The novel coiled-coil protein golgin 45 interacts with GRASP55 and the GTP form of Rab 2, suggesting that GRASP55 and golgin 45 form a Rab 2 effector complex on medial-Golgi essential for normal protein transport and Golgi structure. ERK2 directly phosphorylates GRASP55, which is phosphorylated in mitotic cells, suggesting that mitogen-activated protein kinase kinase (MKK)/ERK pathway phosphorylates the Golgi during mitosis.

CHROMOSOMAL LOCATION

Genetic locus: GORASP1 (human) mapping to 3p22.2; Gorasp1 (mouse) mapping to 9 F4.

SOURCE

GRASP65 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GRASP65 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-19481 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GRASP65 (C-20) is recommended for detection of GRASP65 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).

GRASP65 (C-20) is also recommended for detection of GRASP65 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GRASP65 siRNA (h): sc-41228, GRASP65 siRNA (m): sc-41229, GRASP65 shRNA Plasmid (h): sc-41228-SH, GRASP65 shRNA Plasmid (m): sc-41229-SH, GRASP65 shRNA (h) Lentiviral Particles: sc-41228-V and GRASP65 shRNA (m) Lentiviral Particles: sc-41229-V.

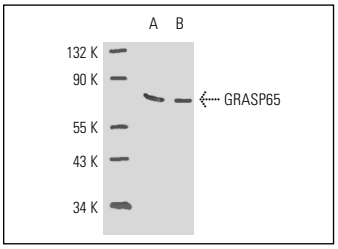
Molecular Weight of GRASP65: 65 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

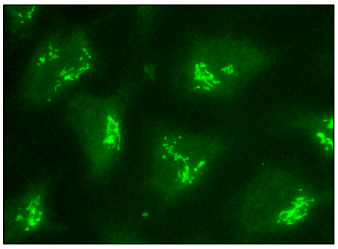
RECOMMENDED SECONDARY REAGENTS

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



GRASP65 (C-20): sc-19481. Western blot analysis of GRASP65 expression in Hep G2 (**A**) and HeLa (**B**) whole cell lysates.



GRASP65 (C-20): sc-19481. Immunofluorescence staining of methanol-fixed HeLa cells showing golgi apparatus localization.

SELECT PRODUCT CITATIONS

1. Rivero, S., et al. 2009. Microtubule nucleation at the *cis*-side of the Golgi apparatus requires AKAP450 and GM130. EMBO J. 28: 1016-1028.
2. Lee, I., et al. 2014. Membrane adhesion dictates Golgi stacking and cisternal morphology. Proc. Natl. Acad. Sci. USA 111: 1849-1854.

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 or our catalog for detailed protocols and support products.