

# GLG1 (V-14): sc-164487

## BACKGROUND

GLG1 (Golgi apparatus protein 1), also known as CFR1 (cysteine-rich fibroblast growth factor receptor), ESL1 (E-selectin ligand 1) or MG160 (Golgi sialoglycoprotein MG-160), is a 1,179 amino acid single-pass type I membrane protein localized to Golgi apparatus. Widely expressed in both adult and fetal tissues, GLG1 is found in kidney, liver, lung and brain, with highest levels in pancreas, skeletal muscle, placenta, heart, testis and ovary. The early appearance and ubiquitous presence of GLG1 suggests that the protein plays an important role in the production and function of Golgi apparatus. GLG1 binds E-selectin, a process which requires GLG1 fucosylation, and FGF. GLG1 contains 16 cys-rich GLG1 repeats and exists as 2 alternatively spliced isoforms. The gene encoding GLG1 maps to human chromosome 16q23.1 and mouse chromosome 8 E1.

## REFERENCES

- Gonatas, J.O., et al. 1989. MG-160. A novel sialoglycoprotein of the medial cisternae of the Golgi apparatus. *J. Biol. Chem.* 264: 646-653. .
- Mourelatos, Z., et al. 1995. Assignment of the GLG1 gene for MGF-160, a fibroblast growth factor and E-selectin binding membrane sialoglycoprotein of the Golgi apparatus, to chromosome 16q22-q23 by fluorescence *in situ* hybridization. *Genomics* 28: 354-355.
- Online Mendelian Inheritance in Man, OMIM™. 1995. Johns Hopkins University, Baltimore, MD. MIM Number: 600753. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Mourelatos, Z., et al. 1996. Cloning and sequence analysis of the human MG160, a fibroblast growth factor and E-selectin binding membrane sialoglycoprotein of the Golgi apparatus. *DNA Cell Biol.* 15: 1121-1128.
- Willmroth, F., et al. 1999. Structure of the murine E-selectin ligand 1 (ESL-1) gene and assignment to Chromosome 8. *Mamm. Genome* 10: 1085-1088.
- Wild, M.K., et al. 2001. Affinity, kinetics, and thermodynamics of E-selectin binding to E-selectin ligand-1. *J. Biol. Chem.* 276: 31602-31612.
- Yamaguchi, F., et al. 2003. Identification of MG-160, a FGF binding medial Golgi sialoglycoprotein, in brain tumors: an index of malignancy in astrocytomas. *Int. J. Oncol.* 22: 1045-1049.

## CHROMOSOMAL LOCATION

Genetic locus: GLG1 (human) mapping to 16q23.1; Glg1 (mouse) mapping to 8 E1.

## SOURCE

GLG1 (V-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of GLG1 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-164487 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

GLG1 (V-14) is recommended for detection of GLG1 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).

GLG1 (V-14) is also recommended for detection of GLG1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for GLG1 siRNA (h): sc-93169, GLG1 siRNA (m): sc-145420, GLG1 shRNA Plasmid (h): sc-93169-SH, GLG1 shRNA Plasmid (m): sc-145420-SH, GLG1 shRNA (h) Lentiviral Particles: sc-93169-V and GLG1 shRNA (m) Lentiviral Particles: sc-145420-V.

Molecular Weight of GLG1 isoform 1: 135 kDa.

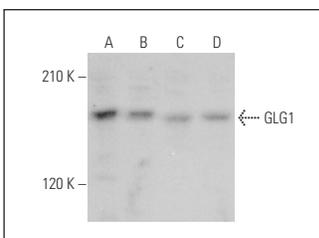
Molecular Weight of GLG1 isoform 2: 137 kDa.

Positive Controls: U-251-MG whole cell lysate: sc-364176, K-562 whole cell lysate: sc-2203 or JAR cell lysate: sc-2276.

## 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



GLG1 (V-14): sc-164487. Western blot analysis of GLG1 expression in MCF7 (A), U-251-MG (B), JAR (C) and K-562 (D) whole cell lysates.

## 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.