# GOLGA7 (N-12): sc-87761



The Power to Question

## **BACKGROUND**

GOLGA7 (Golgin subfamily A member 7), also known as GCP16 (Golgi complex-associated protein of 16 kDa) or GOLGA3AP1, is a multi-pass membrane protein belonging to the Erf4 family of proteins. It is the functional ortholog of the yeast Erf4 protein. Localizing to the Golgi apparatus, GOLGA7 is a widely expressed protein but its expression is absent from colon and thymus tissues. GOLGA7 is palmitoylated on two cysteine residues, and this palmitoylation is required for its interaction with golgin 160 and its Golgi-localization. GOLGA7 also forms a complex with ZDHHC9 and, together, these proteins function as a Ras palmitoyltransferase (Ras PAT) which is required for palmitoylation of H-Ras and N-Ras proteins. The palmitoylation of Ras proteins is essential for the trafficking of Ras proteins from the Golgi to the plasma membrane, thus implicating GOLGA7 in protein transport from the Golgi to the cell surface.

# **REFERENCES**

- Ohta, E., Misumi, Y., Sohda, M., Fujiwara, T., Yano, A. and Ikehara, Y. 2003. Identification and characterization of GCP16, a novel acylated Golgi protein that interacts with GCP170. J. Biol. Chem. 278: 51957-51967.
- Swarthout, J.T., Lobo, S., Farh, L., Croke, M.R., Greentree, W.K., Deschenes, R.J. and Linder, M.E. 2005. DHHC9 and GCP16 constitute a human protein fatty acyltransferase with specificity for H- and N-Ras. J. Biol. Chem. 280: 31141-31148.
- Mitchell, D.A., Vasudevan, A., Linder, M.E. and Deschenes, R.J. 2006. Protein palmitoylation by a family of DHHC protein S-acyltransferases. J. Lipid Res. 47: 1118-1127.
- 4. Nadolski, M.J. and Linder, M.E. 2007. Protein lipidation. FEBS J. 274: 5202-5210.
- Mansilla, F., Birkenkamp-Demtroder, K., Kruhøffer, M., Sørensen, F.B., Andersen, C.L., Laiho, P., Aaltonen, L.A., Verspaget, H.W. and Orntoft, T.F. 2007. Differential expression of DHHC9 in microsatellite stable and instable human colorectal cancer subgroups. Br. J. Cancer 96: 1896-1903.
- Elbauomy Elsheikh, S., Green, A.R., Lambros, M.B., Turner, N.C., Grainge, M.J., Powe, D., Ellis, I.O. and Reis-Filho, J.S. 2007. FGFR1 amplification in breast carcinomas: a chromogenic *in situ* hybridisation analysis. Breast Cancer Res. 9: R23-R23.
- Steck, E., Bräun, J., Pelttari, K., Kadel, S., Kalbacher, H. and Richter, W. 2007. Chondrocyte secreted CRTAC1: a glycosylated extracellular matrix molecule of human articular cartilage. Matrix Biol. 26: 30-41.

# CHROMOSOMAL LOCATION

Genetic locus: GOLGA7 (human) mapping to 8p11.21; Golga7 (mouse) mapping to 8 A2.

# SOURCE

GOLGA7 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of GOLGA7 of human origin.

#### **RESEARCH USE**

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

#### **PRODUCT**

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-87761 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **APPLICATIONS**

GOLGA7 (N-12) is recommended for detection of GOLGA7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

GOLGA7 (N-12) is also recommended for detection of GOLGA7 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for GOLGA7 siRNA (h): sc-77564, GOLGA7 siRNA (m): sc-145667, GOLGA7 shRNA Plasmid (h): sc-77564-SH, GOLGA7 shRNA Plasmid (m): sc-145667-SH, GOLGA7 shRNA (h) Lentiviral Particles: sc-77564-V and GOLGA7 shRNA (m) Lentiviral Particles: sc-145667-V.

Molecular Weight of GOLGA7: 16 kDa.

## **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) 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.

#### **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 or our catalog for detailed protocols and support products.



Try **GOLGA7 (NO-2): sc-101278**, our highly recommended monoclonal alternative to GOLGA7 (N-12).

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