

# COG2 (C-18): sc-323747

## BACKGROUND

The structure and function of the Golgi apparatus is controlled by a number of multi-protein complexes that are involved in glycosylation reactions and vesicular transport. The conserved oligomeric Golgi (COG) complex consists of three subcomplexes, termed LDLC, SEC34 and GTT (Golgi transport complex), all of which contain proteins necessary for proper Golgi operation. COG2 (conserved oligomeric Golgi complex subunit 2), also known as LDLC, is a 730 amino acid component of the COG complex. Localized to the cytoplasmic side of the Golgi apparatus, COG2 is required for proper Golgi morphology and function, specifically playing a role in Golgi ribbon formation and vesicular transport. Abnormal COG2 function may cause cell death, suggesting that COG2 is an important factor in cell viability.

## REFERENCES

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4. Ungar, D., et al. 2002. Characterization of a mammalian Golgi-localized protein complex, COG, that is required for normal Golgi morphology and function. *J. Cell Biol.* 157: 405-415.
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7. Ungar, D., et al. 2006. Retrograde transport on the COG railway. *Trends Cell Biol.* 16: 113-120.
8. Cavanaugh, L.F., et al. 2007. Structural analysis of conserved oligomeric Golgi complex subunit 2. *J. Biol. Chem.* 282: 23418-23426.

## CHROMOSOMAL LOCATION

Genetic locus: COG2 (human) mapping to 1q42.2.

## SOURCE

COG2 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of COG2 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-323747 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

COG2 (C-18) is recommended for detection of COG2 of 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); non cross-reactive with other COG family members.

COG2 (C-18) is also recommended for detection of COG2 in additional species, including porcine.

Suitable for use as control antibody for COG2 siRNA (h): sc-88101, COG2 shRNA Plasmid (h): sc-88101-SH and COG2 shRNA (h) Lentiviral Particles: sc-88101-V.

Molecular Weight of COG2: 83 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.