

# COPZ1 (D-20): sc-13349

## BACKGROUND

Membrane and vesicular trafficking in the early secretory pathway are mediated by non-Clathrin COP (coat protein) I-coated vesicles. COPI-coated vesicles mediate retrograde transport from the Golgi back to the ER and intra-Golgi transport. The cytosolic precursor of the COPI coat, the heptameric coatomer complex, is composed of two subcomplexes. The first consists of the COPB, COPG, COPD and COPZ1 subunits (also known as  $\beta$ -COP,  $\gamma$ -COP,  $\delta$ -COP and  $\zeta$ -1 COP, respectively), which are distantly homologous to AP Clathrin adaptor subunits. The second consists of the COPA, COPP and COPE subunits (also known as  $\alpha$ -COP, COPP and  $\epsilon$ -COP, respectively).

## REFERENCES

1. Lowe, M. and Kreis, T.E. 1995. *In vitro* assembly and disassembly of coatomer. J. Biol. Chem. 270: 31364-31371.
2. Cosson, P., et al. 1996.  $\delta$ - and  $\zeta$ -COP, two coatomer subunits homologous to Clathrin-associated proteins, are involved in ER retrieval. EMBO. J. 15: 1792-1798.
3. Faulstich, D., et al. 1996. Architecture of coatomer: molecular characterization of  $\delta$ -COP and protein interactions within the complex. J. Cell Biol. 135: 53-61.
4. Harter, C. and Wieland, F.T. 1998. A single binding site for dilysine retrieval motifs and p23 within the  $\gamma$  subunit of coatomer. Proc. Natl. Acad. Sci. USA 95: 11649-11654.
5. Schroder-Kohne, S., et al. 1998.  $\alpha$ -COP can discriminate between distinct, functional di-lysine signals *in vitro* and regulates access into retrograde transport. J. Cell Sci. 111: 3459-3470.
6. Kimata, Y., et al. 2000. Impaired proteasome function rescues thermosensitivity of yeast cells lacking the coatomer subunit  $\epsilon$ -COP. J. Biol. Chem. 275: 10655-10660.
7. Watson, P.J., et al. 2004.  $\gamma$ -COP appendage domain—structure and function. Traffic 5: 79-88.

## CHROMOSOMAL LOCATION

Genetic locus: COPZ1 (human) mapping to 12q13.13; Copz1 (mouse) mapping to 15 F3.

## SOURCE

COPZ (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of COPZ of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-13349 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

COPZ1 (D-20) is recommended for detection of COPZ1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1  $\mu$ g per  $1 \times 10^6$  cells); may cross-react with COPZ2.

COPZ1 (D-20) is also recommended for detection of COPZ1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for COPZ1 siRNA (h): sc-41202, COPZ1 siRNA (m): sc-41203, COPZ1 shRNA Plasmid (h): sc-41202-SH, COPZ1 shRNA Plasmid (m): sc-41203-SH, COPZ1 shRNA (h) Lentiviral Particles: sc-41202-V and COPZ1 shRNA (m) Lentiviral Particles: sc-41203-V.

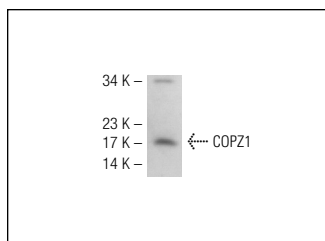
Molecular Weight of COPZ1: 20 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

## 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



COPZ1 (D-20): sc-13349. Western blot analysis of COPZ1 expression in K-562 whole cell lysate.

## STORAGE

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

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Try **COPZ1 (B-12): sc-398081** or **COPZ1 (H-12): sc-398219**, our highly recommended monoclonal alternatives to COPZ1 (D-20).