

COPZ1/2 (L-13): sc-13348

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 COPZ subunits (also known as β -, γ -, δ - and ζ -COP, respectively), which are distantly homologous to AP Clathrin adaptor subunits. The second consists of the COPA, COPP and COPE subunits (also known as α -, β' - and ϵ -COP, respectively). The coatomer complex may contain either COPZ1 or COPZ2 (also known as ζ 1-COP and ζ 2-COP, respectively), which are thought to be involved in coat assembly and may regulate the rate of biosynthetic transport via their association-dissociation properties with the coatomer complex.

REFERENCES

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2. Cosson, P., et al. 1996. δ - and ζ -COP, two coatomer subunits homologous to clathrin-associated proteins, are involved in ER retrieval. EMBO J. 15: 1792-1798.
3. Tunnaclyffe, A., et al. 1996. The coatomer protein δ -COP, encoded by the archain gene, is conserved across diverse eukaryotes. Mamm. Genome 7: 784-786.
4. Harter, C. and Wieland, F.T. 1998. A single binding site for dilysine retrieval motifs and p23 within the γ subunit of coatomer. Proc. Natl. Acad. Sci. USA 95: 11649-11654.
5. Futatsumori, M., et al. 2000. Identification and characterization of novel isoforms of COPI subunits. J. Biochem. 128: 793-801.
6. Hahn, Y., et al. 2000. Duplication of genes encoding non-clathrin coat protein γ -COP in vertebrate, insect and plant evolution. FEBS Lett. 482: 31-36.
7. Eugster, A., et al. 2004. The α - and β' -COP WD40 domains mediate cargo-selective interactions with distinct di-lysine motifs. Mol. Biol. Cell 15: 1011-1023.

CHROMOSOMAL LOCATION

Genetic locus: COPZ1 (human) mapping to 12q13.13, COPZ2 (human) mapping to 17q21.32; Copz1 (mouse) mapping to 15 F3, Copz2 (mouse) mapping to 11 D.

SOURCE

COPZ1/2 (L-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of COPZ1 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-13348 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COPZ1/2 (L-13) is recommended for detection of COPZ1 and COPZ2 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).

COPZ1/2 (L-13) is also recommended for detection of COPZ1 and COPZ2 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of COPZ1/2: 20 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.

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.


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 Satisfaction
 Guaranteed

Try **COPZ1 (B-12): sc-398081** or **COPZ1 (H-12): sc-398219**, our highly recommended monoclonal alternatives to COPZ1/2 (L-13).