

# COPA (D-24): sc-133474



The Power to Question

## BACKGROUND

COPA ( $\alpha$ -coat protein) is processed to produce Xenin. Xenin stimulates exocrine pancreatic secretion to affect small and large intestinal motility, and inhibits pentagastrin-stimulated secretion of acid. In the gut, Xenin interacts with the neurotensin receptor. 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  $\beta$ -,  $\gamma$ -,  $\delta$ - and  $\zeta$ -COP, respectively), which are distantly homologous to AP Clathrin adaptor subunits. The second consists of the COPA,  $\beta'$ -COP and COPE subunits (also known as  $\alpha$ -COP, COPP and  $\epsilon$ -COP, respectively).

## REFERENCES

1. Chow V.T., et al. 1997.  $\alpha$ -coat protein COPA (HEP-COP): presence of an Alu repeat in cDNA and identity of the amino-terminus to Xenin. *Ann. Hum. Genet.* 61: 369-373.
2. Quek, H.H., et al. 1997. Molecular and cellular studies of the human homolog of the 160 kDa  $\alpha$  subunit of the coatomer protein complex. *DNA Cell. Biol.* 16: 275-280.
3. Feurle G.E., et al. 1998. Xenin—a review. *Peptides* 19: 609-615.
4. 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 (Pt. 23): 3459-3470.
5. Chaudhary, A., et al. 1998. Specific interaction of Golgi coatomer protein  $\alpha$ -COP with phosphatidylinositol 3,4,5-trisphosphate. *J. Biol. Chem.* 273: 8344-8350.
6. Andag, U., et al. 2003. Dsl1p, an essential component of the Golgi-endoplasmic reticulum retrieval system in yeast, uses the same sequence motif to interact with different subunits of the COPI vesicle coat. *J. Biol. Chem.* 278: 51722-51734.
7. Eugster, A., et al. 2004. The  $\alpha$ - and  $\beta'$ -COP WD40 domains mediate cargo-selective interactions with distinct di-lysine motifs. *Mol. Biol. Cell* 15: 1011-1023.
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## CHROMOSOMAL LOCATION

Genetic locus: COPA (human) mapping to 1q23.2; Copa (mouse) mapping to 1 H3.

## SOURCE

COPA (D-24) is an affinity purified rabbit polyclonal antibody raised against synthetic COPA peptide of human origin.

## PRODUCT

Each vial contains 50  $\mu$ g IgG in 500  $\mu$ l PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

## APPLICATIONS

COPA (D-24) is recommended for detection of COPA of mouse 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for COPA siRNA (h): sc-43696, COPA siRNA (m): sc-142501, COPA shRNA Plasmid (h): sc-43696-SH, COPA shRNA Plasmid (m): sc-142501-SH, COPA shRNA (h) Lentiviral Particles: sc-43696-V and COPA shRNA (m) Lentiviral Particles: sc-142501-V.

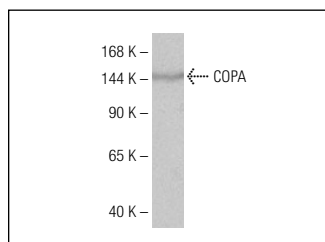
Molecular Weight of COPA: 160 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

## DATA



COPA (D-24): sc-133474. Western blot analysis of COPA expression in HeLa 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.

## RESEARCH USE

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



Try **COPA (H-3): sc-398099**, our highly recommended monoclonal alternative to COPA (D-24).