SANTA CRUZ BIOTECHNOLOGY, INC.

COPE (Y-19): sc-13345

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

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, β'-COP and COPE subunits (also known as α-COP, COPP and ε-COP, respectively).

REFERENCES

1. Lowe, M. and Kreis, T.E. 1995. *In vitro* assembly and dissembly of coatomer. J. Biol. Chem. 270: 31364-31371.
2. Daro, E., et al. 1997. Inhibition of endosome function in CHO cells bearing a temperature-sensitive defect in the coatomer (COPI) component ε-COP. J. Cell Biol. 139: 1747-1759.
3. Duden, R., et al. 1998. ε-COP is a structural component of coatomer that functions to stabilize α-COP. EMBO J. 17: 985-995.
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. Andersson, H., et al. 1999. Protein targeting to endoplasmic reticulum by dilysine signals involves direct retention in addition to retrieval. J. Biol. Chem. 274: 15080-15084.
6. Chow, C.W., et al. 1999. The epithelial Na^+/H^+ exchanger, NHE3, is internalized through a Clathrin-mediated pathway. J. Biol. Chem. 274: 37551-37558.
7. Kimata, Y., et al. 2000. Impaired proteasome function rescues thermosensitivity of yeast cells lacking the coatomer subunit ε-COP. J. Biol. Chem. 275: 10655-10660.
8. SWISS-PROT/TrEMBL (P48444). World Wide Web URL: http://harvester.embl.de/harvester/P484/P48444.htm

CHROMOSOMAL LOCATION

Genetic locus: COPE (human) mapping to 19p13.11; Cope (mouse) mapping to 8 B3.3.

SOURCE

COPE (Y-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of COPE 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-13345 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COPE (Y-19) is recommended for detection of COPE of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

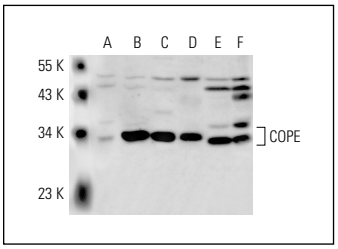
COPE (Y-19) is also recommended for detection of COPE in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for COPE siRNA (h): sc-41198, COPE siRNA (m): sc-41199, COPE shRNA Plasmid (h): sc-41198-SH, COPE shRNA Plasmid (m): sc-41199-SH, COPE shRNA (h) Lentiviral Particles: sc-41198-V and COPE shRNA (m) Lentiviral Particles: sc-41199-V.

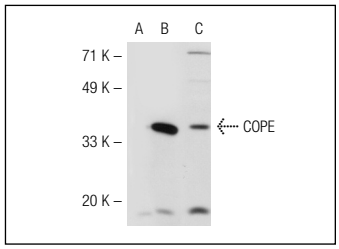
Molecular Weight of COPE: 36 kDa.

Positive Controls: COPE (m2): 293T Lysate: sc-119398, KNRK whole cell lysate: sc-2214 or NIH/3T3 whole cell lysate: sc-2210.

DATA



COPE (Y-19): sc-13345. Western blot analysis of COPE expression in non-transfected 293: sc-110760 (**A**), mouse COPE transfected 293: sc-111288 (**B**), KNRK (**C**), NIH/3T3 (**D**), MCF7 (**E**) and HeLa (**F**) whole cell lysates.



COPE (Y-19): sc-13345. Western blot analysis of COPE expression in non-transfected 293T: sc-117752 (**A**), mouse COPE transfected 293T: sc-119398 (**B**) and NIH/3T3 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Rohde, H.M., et al. 2003. The human phosphatidylinositol phosphatase SAC1 interacts with the coatomer I complex. J. Biol. Chem. 278: 52689-52699.

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.