SANTA CRUZ BIOTECHNOLOGY, INC.

COPB (H-300): sc-30091

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. COPB (β-COP) is a marker protein for pre-Golgi intermediates (vesicular tubular clusters, VTCs). GIV (gais interacting protein) colocalizes with COPB and $G\alpha_{i3}$ on vesicles found in close proximity to ER exit sites and to *cis* Golgi cisternae. Afadin DIL domain-interacting protein (ADIP) co-localizes with COPP (β'-COP) at the Golgi complex in Madin Darby canine kidney and normal rat kidney cells. Non-clathrin-coated vesicles mediate membrane traffic through the Golgi complex. COPB is a major component of the coat of non-clathrin-coated vesicles.

REFERENCES

1. Lowe, M. and Kreis, T.E. 1995. *In vitro* assembly and dissembly of coatomer. J. Biol. Chem. 270: 31364-31371.
2. Faulstich, D., et al. 1996. Architecture of coatomer: molecular characterization of δ-COP and protein interactions within the complex. J. Cell Biol. 135: 53-61.
3. 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.

CHROMOSOMAL LOCATION

Genetic locus: COPB1 (human) mapping to 11p15.2; Copb1 (mouse) mapping to 7 F1.

SOURCE

COPB (H-300) is a rabbit polyclonal antibody raised against amino acids 654-953 mapping at the C-terminus of COPB 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.

APPLICATIONS

COPB (H-300) is recommended for detection of COPB 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).

COPB (H-300) is also recommended for detection of COPB in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for COPB siRNA (h): sc-41196, COPB siRNA (m): sc-41197, COPB shRNA Plasmid (h): sc-41196-SH, COPB shRNA Plasmid (m): sc-41197-SH, COPB shRNA (h) Lentiviral Particles: sc-41196-V and COPB shRNA (m) Lentiviral Particles: sc-41197-V.

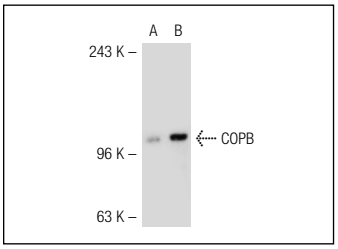
Molecular Weight of COPB: 110 kDa.

Positive Controls: COPB (m): 293T Lysate: sc-126656.

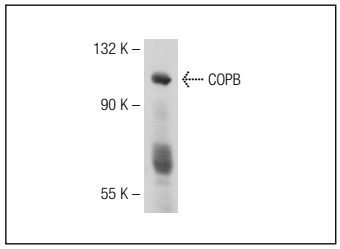
RECOMMENDED SECONDARY REAGENTS

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



COPB (H-300): sc-30091. Western blot analysis of COPB expression in non-transfected: sc-117752 (**A**) and mouse COPB transfected: sc-126656 (**B**) 293T whole cell lysates.



COPB (H-300): sc-30091. Western blot analysis of COPB expression in mouse kidney tissue extract.

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 or our catalog for detailed protocols and support products.

MONOS Satisfaction Guaranteed

Try **COPB (D-10): sc-393615** or **COPB (E-2): sc-165976**, our highly recommended monoclonal alternatives to COPB (H-300).