

COPB (T-14): sc-13335

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 ($G_{\alpha i/s}$ interacting protein) colocalizes with COPB and $G_{\alpha i-3}$ on vesicles found in close proximity to ER exit sites and to *cis* Golgi cisternae. Afadin DIL domain-interacting protein (ADIP) co-localizes with β' -COP (COPP) 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. Duden, R., et al. 1991. Involvement of β -COP in membrane traffic through the Golgi complex. *Trends Cell Biol.* 1: 14-19.
2. Lowe, M. and Kreis, T.E. 1995. *In vitro* assembly and disassembly of coatomer. *J. Biol. Chem.* 270: 31364-31371.

CHROMOSOMAL LOCATION

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

SOURCE

COPB (T-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of COPB of rat origin.

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-13335 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COPB (T-14) 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 μ g per 100-500 μ g 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 (T-14) 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.

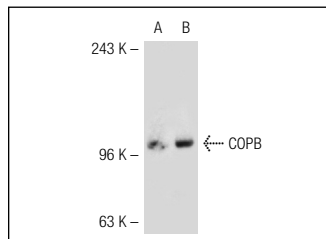
Molecular Weight of COPB: 110 kDa.

Positive Controls: COPB (m): 293T Lysate: sc-126656 or mouse kidney extract: sc-2255.

STORAGE

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

DATA



COPB (T-14): sc-13335. Western blot analysis of COPB expression in non-transfected: sc-117752 (A) and mouse COPB transfected: sc-126656 (B) 293T 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.
2. Cauvi, D.M., et al. 2006. Transport of the IgE receptor α -chain is controlled by a multicomponent intracellular retention signal. *J. Biol. Chem.* 281: 10448-10460.
3. Fugier, E., et al. 2009. The glyceraldehyde-3-phosphate dehydrogenase and the small GTPase Rab 2 are crucial for *Brucella* replication. *PLoS Pathog.* 5: e1000487.
4. Rub, A., et al. 2009. Cholesterol depletion associated with Leishmania major infection alters macrophage CD40 signalosome composition and effector function. *Nat. Immunol.* 10: 273-280.

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.



Try **COPB (D-10): sc-393615** or **COPB (E-2): sc-165976**, our highly recommended monoclonal alternatives to COPB (T-14).