SANTA CRUZ BIOTECHNOLOGY, INC.

COPZ1 (B-12): sc-398081

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. 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. 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.
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. Schroder-Kohne, S., et al. 1998. α-COP can discriminate between distinct, functional di-lysine signals *in vitro* and regulates access into retrograde transport. J. Cell Sci. 111: 3459-3470.
6. 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.

CHROMOSOMAL LOCATION

Genetic locus: COPZ1 (human) mapping to 12q13.13; Copz1 (mouse) mapping to 15 F3.

SOURCE

COPZ1 (B-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 128-159 near the C-terminus of COPZ1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_3 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-398081 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

COPZ1 (B-12) is recommended for detection of COPZ1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

COPZ1 (B-12) is also recommended for detection of COPZ1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for COPZ1 siRNA (h): sc-41202, COPZ1 siRNA (m): sc-41203, COPZ1 shRNA Plasmid (h): sc-41202-SH, COPZ1 shRNA Plasmid (m): sc-41203-SH, COPZ1 shRNA (h) Lentiviral Particles: sc-41202-V and COPZ1 shRNA (m) Lentiviral Particles: sc-41203-V.

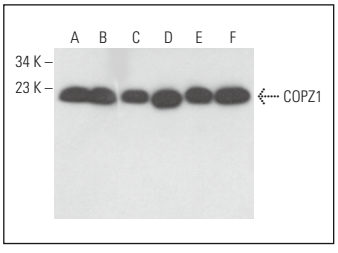
Molecular Weight of COPZ1: 20 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or 3611-RF whole cell lysate: sc-2215.

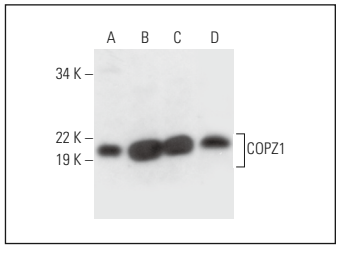
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



COPZ1 (B-12): sc-398081. Western blot analysis of COPZ1 expression in Jurkat (**A**), SUP-T1 (**B**), BYDP (**C**), 3611-RF (**D**), Neuro-2A (**E**) and C6 (**F**) whole cell lysates.



COPZ1 (B-12): sc-398081. Western blot analysis of COPZ1 expression in COS (**A**), K-562 (**B**) and Jurkat (**C**) whole cell lysates and human brain tissue extract (**D**).

SELECT PRODUCT CITATIONS

1. Di Marco, T., et al. 2020. COPZ1 depletion in thyroid tumor cells triggers type I IFN response and immunogenic cell death. Cancer Lett. 476: 106-119.

RESEARCH USE

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