

COPZ1 (F-11): sc-398220

BACKGROUND

Membrane and vesicular trafficking in the early secretory pathway are mediated by non-Clathrin COP (coat protein) I-coated vesicles. COP I-coated vesicles mediate retrograde transport from the Golgi back to the ER and intra-Golgi transport. The cytosolic precursor of the COP I 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 disassembly 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. 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.
5. 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.
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.
7. Watson, P.J., et al. 2004. γ -COP appendage domain—structure and function. Traffic 5: 79-88.

CHROMOSOMAL LOCATION

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

SOURCE

COPZ1 (F-11) 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 μ g IgG_{2b} 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-398220 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

COPZ1 (F-11) 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 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).

COPZ1 (F-11) 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.

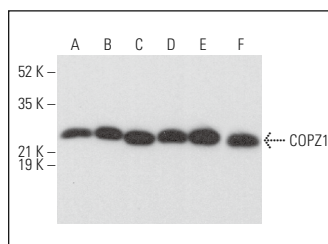
Positive Controls: Jurkat whole cell lysate: sc-2204, 3611-RF whole cell lysate: sc-2215 or K-562 whole cell lysate: sc-2203.

RECOMMENDED SUPPORT REAGENTS

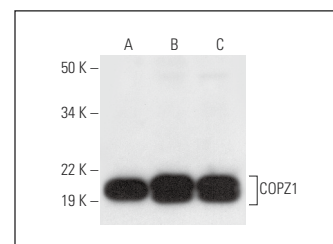
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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 (F-11): sc-398220. Western blot analysis of COPZ1 expression in Jurkat (A), BYDP (B), 3611-RF (C), RAW 264.7 (D), T-47D (E) and K-562 (F) whole cell lysates.



COPZ1 (F-11): sc-398220. Western blot analysis of COPZ1 expression in COS (A), K-562 (B) and Jurkat (C) whole cell lysates.

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.