

COPD (E-12): sc-515549

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., et al. 1995. *In vitro* assembly and disassembly 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. Tunnaclyffe, A., et al. 1996. The coatomer protein δ -COP, encoded by the archain gene, is conserved across diverse eukaryotes. Mamm. Genome 7: 784-786.
4. 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.
5. Harter, C., et al. 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.

CHROMOSOMAL LOCATION

Genetic locus: ARCN1 (human) mapping to 11q23.3; Arcn1 (mouse) mapping to 9 A5.2.

SOURCE

COPD (E-12) is a mouse monoclonal antibody raised against amino acids 254-511 mapping at the C-terminus of COPD of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

COPD (E-12) is available conjugated to agarose (sc-515549 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515549 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515549 PE), fluorescein (sc-515549 FITC), Alexa Fluor[®] 488 (sc-515549 AF488), Alexa Fluor[®] 546 (sc-515549 AF546), Alexa Fluor[®] 594 (sc-515549 AF594) or Alexa Fluor[®] 647 (sc-515549 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515549 AF680) or Alexa Fluor[®] 790 (sc-515549 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

COPD (E-12) is recommended for detection of COPD 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).

Suitable for use as control antibody for COPD siRNA (h): sc-106917, COPD siRNA (m): sc-142502, COPD shRNA Plasmid (h): sc-106917-SH, COPD shRNA Plasmid (m): sc-142502-SH, COPD shRNA (h) Lentiviral Particles: sc-106917-V and COPD shRNA (m) Lentiviral Particles: sc-142502-V.

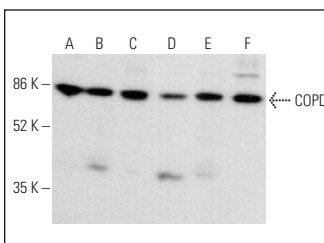
Molecular Weight of COPD: 57 kDa.

Positive Controls: ZR-75-1 cell lysate: sc-2241, MDA-MB-231 cell lysate: sc-2232 or HeLa whole cell lysate: sc-2200.

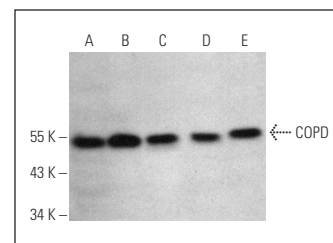
RECOMMENDED SUPPORT REAGENTS

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



COPD (E-12): sc-515549. Western blot analysis of COPD expression in HeLa (A), BT-20 (B), MDA-MB-231 (C), ALL-SIL (D), BYDP (E) and TK-1 (F) whole cell lysates.



COPD (E-12): sc-515549. Western blot analysis of COPD expression in NIH/3T3 (A), ZR-75-1 (B), MCF7 (C), Jurkat (D) and PC-12 (E) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Barbera, S., et al. 2019. The small GTPase Rab5c is a key regulator of trafficking of the CD93/Multimerin-2/ β 1 integrin complex in endothelial cell adhesion and migration. Cell Commun. Signal. 17: 55.
2. Steiner, A., et al. 2022. Deficiency in coatomer complex I causes aberrant activation of STING signalling. Nat. Commun. 13: 2321.

STORAGE

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

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