SANTA CRUZ BIOTECHNOLOGY, INC.

COPA (H-3): sc-398099

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

COPA (α-coat protein) is processed to produce Xenin. Xenin stimulates exocrine pancreatic secretion to affect small and large intestinal motility, and inhibits pentagastrin-stimulated secretion of acid. In the gut, Xenin interacts with the neurotensin receptor. Membrane and vesicular trafficking in the early secretory pathway are mediated by non-Clathrin COP (coat protein)-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).

CHROMOSOMAL LOCATION

Genetic locus: COPA (human) mapping to 1q23.2; Copa (mouse) mapping to 1 H3.

SOURCE

COPA (H-3) is a mouse monoclonal antibody raised against amino acids 934-1233 mapping at the C-terminus of COPA of human origin.

PRODUCT

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

COPA (H-3) is available conjugated to agarose (sc-398099 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398099 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398099 PE), fluorescein (sc-398099 FITC), Alexa Fluor® 488 (sc-398099 AF488), Alexa Fluor® 546 (sc-398099 AF546), Alexa Fluor® 594 (sc-398099 AF594) or Alexa Fluor® 647 (sc-398099 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398099 AF680) or Alexa Fluor® 790 (sc-398099 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

COPA (H-3) is recommended for detection of COPA 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).

Suitable for use as control antibody for COPA siRNA (h): sc-43696, COPA siRNA (m): sc-142501, COPA shRNA Plasmid (h): sc-43696-SH, COPA shRNA Plasmid (m): sc-142501-SH, COPA shRNA (h) Lentiviral Particles: sc-43696-V and COPA shRNA (m) Lentiviral Particles: sc-142501-V.

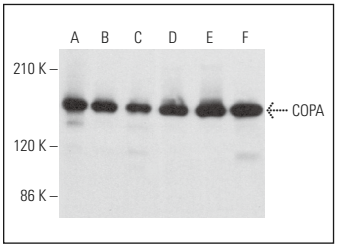
Molecular Weight of COPA: 140 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, U-251-MG whole cell lysate: sc-364176 or Hep G2 cell lysate: sc-2227.

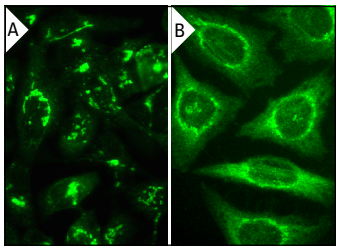
STORAGE

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

DATA



COPA (H-3): sc-398099. Western blot analysis of COPA expression in HeLa (**A**), U-251-MG (**B**), Jurkat (**C**), Hep G2 (**D**), MCF7 (**E**) and A-10 (**F**) whole cell lysates.



COPA (H-3): sc-398099. Immunofluorescence staining of formalin-fixed A-431 cells showing Golgi apparatus localization (**A**,**B**).

SELECT PRODUCT CITATIONS

1. McCormick, D., et al. 2018. Identification of host factors involved in human cytomegalovirus replication, assembly, and egress using a two-step small interfering RNA screen. mBio 9: e00716-18.
2. Kuliyev, E., et al. 2018. Overlapping role of SCYL1 and SCYL3 in maintaining motor neuron viability. J. Neurosci. 38: 2615-2630.
3. Baron, D.M., et al. 2019. Quantitative proteomics identifies proteins that resist translational repression and become dysregulated in ALS-FUS. Hum. Mol. Genet. 28: 2143-2160.
4. Custer, S.K., et al. 2019. Interaction between α-COP and SMN ameliorates disease phenotype in a mouse model of spinal muscular atrophy. Biochem. Biophys. Res. Commun. 514: 530-537.
5. Guo, R., et al. 2021. A swine arterivirus deubiquitinase stabilizes two major envelope proteins and promotes production of viral progeny. PLoS Pathog. 17: e1009403.
6. Saraon, P., et al. 2021. Chemical genetics screen identifies COPB2 tool compounds that alters ER stress response and induces RTK dysregulation in lung cancer cells. J. Mol. Biol. 433: 167294.
7. Faria, M., et al. 2021. Analysis of NIS plasma membrane interactors discloses key regulation by a SRC/RAC1/PAK1/PIP5K/EZRIN pathway with potential implications for radioiodine re-sensitization therapy in thyroid cancer. Cancers 13: 5460.
8. Steiner, A., et al. 2022. Deficiency in coatomer complex I causes aberrant activation of STING signalling. Nat. Commun. 13: 2321.
9. Kaeser-Pebernard, S., et al. 2022. mTORC1 controls Golgi architecture and vesicle secretion by phosphorylation of SCYL1. Nat. Commun. 13: 4685.
10. Li, S., et al. 2023. ArfGAP3 regulates vesicle transport and glucose uptake in myoblasts. Cell. Signal. 103: 110551.

RESEARCH USE

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