SANTA CRUZ BIOTECHNOLOGY, INC.

copine 3 (C-7): sc-390143

BACKGROUND

Copine 3, also known as CPNE3, CPN3 or COPN3, is a member of the copine family of evolutionarily conserved, soluble, calcium-dependent, membrane-binding proteins. Members of the copine family are involved in signal transduction and membrane trafficking. Copine 3 is ubiquitously expressed and contains two N-terminal C2 domains and one C-terminal VWFA (von Wille-brand factor A) domain, which is also referred to as the A domain or the core domain. As is characteristic of the copine family, copine 3 functions in membrane trafficking and is capable of binding phospholipids in a calcium-dependent manner. Differing from other members of the copine family, copine 3 may possess some intrinsic kinase activity. Copine 3 exists as a monomer in the cytosol and undergoes a conformational change upon binding to calcium.

REFERENCES

1. Creutz, C.E., et al. 1998. The copines, a novel class of C2 domain-containing, calcium-dependent, phospholipid-binding proteins conserved from *Paramecium* to humans. J. Biol. Chem. 273: 1393-1402.
2. Caudell, E.G., et al. 2000. Characterization of human copine III as a phosphoprotein with associated kinase activity. Biochemistry 39: 13034-13043.

CHROMOSOMAL LOCATION

Genetic locus: CPNE3 (human) mapping to 8q21.3; Cpne3 (mouse) mapping to 4 A3.

SOURCE

copine 3 (C-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 151-189 within an internal region of copine 3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

copine 3 (C-7) is available conjugated to agarose (sc-390143 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390143 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390143 PE), fluorescein (sc-390143 FITC), Alexa Fluor® 488 (sc-390143 AF488), Alexa Fluor® 546 (sc-390143 AF546), Alexa Fluor® 594 (sc-390143 AF594) or Alexa Fluor® 647 (sc-390143 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390143 AF680) or Alexa Fluor® 790 (sc-390143 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390143 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

copine 3 (C-7) is recommended for detection of copine 3 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).

copine 3 (C-7) is also recommended for detection of copine 3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for copine 3 siRNA (h): sc-77730, copine 3 siRNA (m): sc-142504, copine 3 shRNA Plasmid (h): sc-77730-SH, copine 3 shRNA Plasmid (m): sc-142504-SH, copine 3 shRNA (h) Lentiviral Particles: sc-77730-V and copine 3 shRNA (m) Lentiviral Particles: sc-142504-V.

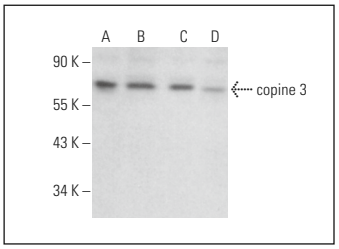
Molecular Weight of copine 3: 61 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, copine 3 (h): 293T Lysate: sc-117061 or SK-BR-3 cell lysate: sc-2218.

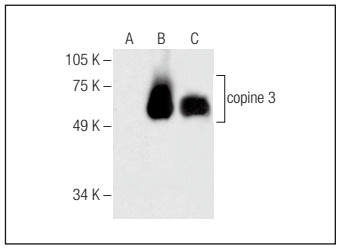
RECOMMENDED SUPPORT REAGENTS

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



copine 3 (C-7): sc-390143. Western blot analysis of copine 3 expression in MCF7 (**A**), C6 (**B**), SK-N-SH (**C**) and EOC 20 (**D**) whole cell lysates.



copine 3 (C-7): sc-390143. Western blot analysis of copine 3 expression in non-transfected 293T: sc-117752 (**A**), human copine 3 transfected 293T: sc-117061 (**B**) and SK-BR-3 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Alves, S., et al. 2022. Cells responding to closely related cholesterol-dependent cytolysins release extracellular vesicles with a common proteomic content including membrane repair proteins. Toxins 15: 4.

RESEARCH USE

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