

# copine 1 (Z6): sc-101269

## BACKGROUND

Copine 1, also known as CPNE1, CPN1 or COPN1, 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 1 is ubiquitously expressed and contains two N-terminal C2 domains and one C-terminal VWFA (von Willebrand factor A) domain, which is also referred to as the A domain or the core domain. As is characteristic of the copine family, copine 1 functions in membrane trafficking and is capable of binding phospholipids in a calcium-dependent manner. Copine 1 is also able to bind liposomes. Via its VWFA domain, copine 1 directly interacts with the ubiquitin-conjugating enzyme, UBC12, and may play a role in the regulation of TNF $\alpha$ -signaling.

## REFERENCES

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- Damer, C.K., Bayeva, M., Hahn, E.S., Rivera, J. and Socec, C.I. 2005. Copine A, a calcium-dependent membrane-binding protein, transiently localizes to the plasma membrane and intracellular vacuoles in *Dictyostelium*. *BMC Cell Biol.* 6: 46-46.
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## CHROMOSOMAL LOCATION

Genetic locus: CPNE1 (human) mapping to 20q11.22.

## SOURCE

copine 1 (Z6) is a mouse monoclonal antibody raised against recombinant copine 1 of human origin.

## PRODUCT

Each vial contains 100  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

copine 1 (Z6) is recommended for detection of copine 1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for copine 1 siRNA (h): sc-72972, copine 1 shRNA Plasmid (h): sc-72972-SH and copine 1 shRNA (h) Lentiviral Particles: sc-72972-V.

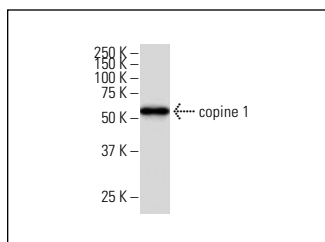
Molecular Weight of copine 1: 60 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, HeLa whole cell lysate: sc-2200 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 $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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).

## DATA



copine 1 (Z6): sc-101269. Western blot analysis of copine 1 expression in HeLa whole cell lysate.

## SELECT PRODUCT CITATIONS

- Tang, H., Zhu, J., Du, W., Liu, S., Zeng, Y., Ding, Z., Zhang, Y., Wang, X., Liu, Z. and Huang, J. 2018. CPNE1 is a target of miR-335-5p and plays an important role in the pathogenesis of non-small cell lung cancer. *J. Exp. Clin. Cancer Res.* 37: 131.

## 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.