

# copine 7 (V-15): sc-164093

## BACKGROUND

Copine 7, also known as CPNE7, 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. *Arabidopsis thaliana* mutants lacking copine proteins exhibit reduced cell number and smaller cell size, effects which may be due to a defect in vesicle fusion or transport. Copine 7 contains two C2 domains and one VWFA (von Willebrand factor A) domain, which is also referred to as the A domain or the core domain. Existing as two alternatively spliced isoforms, copine 7 is thought to function in membrane trafficking and is encoded by a gene that maps to human chromosome 16q24.3.

## REFERENCES

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2. Savino, M., et al. 1999. Characterization of copine VII, a new member of the copine family, and its exclusion as a candidate in sporadic breast cancers with loss of heterozygosity at 16q24.3. *Genomics* 61: 219-226.
3. Tomsig, J.L., et al. 2000. Biochemical characterization of copine: a ubiquitous Ca<sup>2+</sup>-dependent, phospholipid-binding protein. *Biochemistry* 39: 16163-16175.
4. Jambunathan, N., et al. 2001. A humidity-sensitive *Arabidopsis* copine mutant exhibits precocious cell death and increased disease resistance. *Plant Cell* 13: 2225-2240.
5. Tomsig, J.L., et al. 2003. Identification of targets for calcium signaling through the copine family of proteins. Characterization of a coiled-coil copine-binding motif. *J. Biol. Chem.* 278: 10048-10054.
6. Cowland, J.B., et al. 2003. Tissue expression of copines and isolation of copines I and III from the cytosol of human neutrophils. *J. Leukoc. Biol.* 74: 379-388.
7. Damer, C.K., et al. 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.

## CHROMOSOMAL LOCATION

Genetic locus: Cpne7 (mouse) mapping to 8 E1.

## SOURCE

copine 7 (V-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of copine 7 of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-164093 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

copine 7 (V-15) is recommended for detection of copine 7 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other copine family members.

Suitable for use as control antibody for copine 7 siRNA (m): sc-142508, copine 7 shRNA Plasmid (m): sc-142508-SH and copine 7 shRNA (m) Lentiviral Particles: sc-142508-V.

Molecular Weight of copine 7: 70 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.