

## CPNE1 Protein, Human, Recombinant

### General Information

|                       |   |
|-----------------------|---|
| Synonyms:             | CPN1;COPN1;copine I   |
| Protein Construction: | A DNA sequence encoding the human CPNE1(Q99829) (Met1-Ala537) was expressed and purified. Predicted N terminal: Gly |
| Species:              | Human   |
| Expression Host:      | Baculovirus Insect Cells  |
| Accession:            | Q99829  |
| Molecular Weight:     | 59.2 kDa (predicted); 69 kDa (reducing conditions)  |

### QC Testing

|                      |  |
|----------------------|--|
| Biological Activity: | Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.   |
| Purity:              | > 95 % as determined by SDS-PAGE   |
| Endotoxin:           | < 1.0 EU/μg of the protein as determined by the LAL method.  |
| Formulation:         | Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris, 500 mM NaCl, 10% glycerol, pH 7.0. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization. |

### Preparation and Storage

#### Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

#### Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

#### Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

### Protein Background

Copine I, also known as CPN1, is a member of the copine family. Copine I is a calcium-dependent membrane-binding protein which has a wide tissue distribution. Calcium-dependent membrane-binding proteins may regulate molecular events at the interface of the cell membrane and cytoplasm. Copine I contains two N-terminal type II C2 domains and an integrin A domain-like sequence in the C-terminus, while it does not contain a predicted signal sequence or transmembrane domains. Copine I may function in membrane trafficking.

### Reference

Cowland JB, et al. (2003) Tissue expression of copines and isolation of copines I and III from the cytosol of human neutrophils. *J Leukoc Biol.* 74(3):379-88.

Tomsig JL, 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 (12):10048-54.

Strausberg RL, et al. (2003) Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. *Proc Natl Acad Sci.* 99(26):16899-903.

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