

# CaBP7 Antibody

Catalog # ASC11173

## Specification

# CaBP7 Antibody - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Application Notes WB, ICC, IF <u>O86V35</u> NP\_872333, <u>32698884</u> Human, Mouse, Rat Rabbit Polyclonal IgG CaBP7 antibody can be used for detection of CaBP7 by Western blot at 1 - 2 μg/mL. Antibody can also be used for immunocytochemistry starting at 4 μg/mL. For immunofluorescence start at 20 μg/mL.

## CaBP7 Antibody - Additional Information

Gene ID Target/Specificity CABP7; 164633

#### **Reconstitution & Storage**

CaBP7 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions** CaBP7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## **CaBP7 Antibody - Protein Information**

Name CABP7

Synonyms CALN2

**Function** Negatively regulates Golgi-to-plasma membrane trafficking by interacting with PI4KB and inhibiting its activity.

#### **Cellular Location**

Golgi apparatus, trans-Golgi network membrane; Single-pass type IV membrane protein. Cytoplasm, perinuclear region. Cell membrane; Single-pass type IV membrane protein



# CaBP7 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### CaBP7 Antibody - Images



Western blot analysis of CaBP7 in Hela cell lysate with CaBP7 antibody at (A) 1 and (B) 2 µg/mL.



Immunocytochemistry of CaBP7 in HeLa cells with CaBP7 antibody at 4  $\mu$ g/mL.





Immunofluorescence of CABP7 in HeLa cells with CAPB7 antibody at 20 µg/mL.

## CaBP7 Antibody - Background

CaBP7 Antibody: Calcium binding proteins (CaBP) play a crucial role in the calcium-mediated cellular signal transduction pathway in the central nervous system. The CaBP family shares much similarity with CaM I (calmodulin), and it has been shown that CaBP proteins can substitute functionally for, and possibly augment the function of, CaM I. CaBP7 (Calcium-binding protein 7), contains two EF-hand domains for calcium binding and shares 70% homology with CaBP8 and 50% homology with CaM I. It negatively regulates Golgi-to-plasma membrane trafficking by interacting with PI4KB and inhibiting its activity. CaBP7 and 8 possess a targeting mechanism that is unique amongst the CaBPs that may contribute to differential functional Ca2+-sensing by these family members.

## CaBP7 Antibody - References

Sokal I, Li N, Verlinde CL, et al. Ca2+-binding proteins in the retina: from discovery to etiology of human disease. Biochim. Biophys. Acta.2000; 1498: 233-51.

Haeseleer F, Imanishi Y, Sokal I, et al. Calcium-binding proteins: intracellular sensors from the calmodulin superfamily. Biochem. Biophys. Res. Commun.2002; 290:615-23.

Ikura M, Osawa M, and Ames JB. The role of calcium-binding proteins in the control of transcription: structure to function. Bioessays2002; 24:625-36.

McCue HV, Burgoyne RD, Haynes LP. Membrane targeting of the EF-hand containing calcium-sensing proteins CaBP7 and CaBP8. Biochem. Biophys. Res. Commun.2009; 380:825-31.