

# CaBP7 (K-13): sc-86349

## BACKGROUND

Calcium plays an essential role in many biological processes. The calcium binding protein (CaBP) family shares much similarity with CaM I (calmodulin). It has been shown that CaBP proteins can substitute functionally for, and possibly augment the function of, CaM I. Calcium binding proteins play a crucial role in the calcium-mediated cellular signal transduction pathway in the central nervous system. There are several members of the family with varying expression patterns. CaBP7 (calcium-binding protein 7) is a 257 amino acid protein that shares 70% homology with CaBP8 and 50% homology with CaM I. Characteristic of the CaBP protein family, CaBP7 contains two EF-hand domains for calcium binding.

## REFERENCES

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5. Haeseleer, F., Imanishi, Y., Sokal, I., Filipek, S. and Palczewski, K. 2002. Calcium-binding proteins: intracellular sensors from the calmodulin superfamily. *Biochem. Biophys. Res. Commun.* 290: 615-623.
6. Ikura, M., Osawa, M. and Ames, J.B. 2002. The role of calcium-binding proteins in the control of transcription: structure to function. *Bioessays* 24: 625-636.
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## CHROMOSOMAL LOCATION

Genetic locus: CABP7 (human) mapping to 22q12.2; Cabp7 (mouse) mapping to 11 A1.

## SOURCE

CaBP7 (K-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of CaBP7 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86349 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CaBP7 (K-13) is recommended for detection of CaBP7 of mouse, rat and human 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 CaBP family members.

CaBP7 (K-13) is also recommended for detection of CaBP7 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CaBP7 siRNA (h): sc-72772, CaBP7 siRNA (m): sc-141965, CaBP7 shRNA Plasmid (h): sc-72772-SH, CaBP7 shRNA Plasmid (m): sc-141965-SH, CaBP7 shRNA (h) Lentiviral Particles: sc-72772-V and CaBP7 shRNA (m) Lentiviral Particles: sc-141965-V.

Molecular Weight of CaBP7: 24 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.