

CaBP (V-20): sc-28085

BACKGROUND

The calcium binding protein (CaBP) family shares much similarity to calmodulin. It has been shown that CaBP proteins can substitute functionally for, and probably augment the function of, calmodulin. Calcium binding proteins are a crucial part of calcium mediated cellular signal transduction in the central nervous system. There are several members of the family with varying expression patterns. CaBP1 and CaBP2 can be expressed as multiple, alternatively spliced variants in brain and retina. CaBP3, CaBP4 and CaBP 5 are restricted to retinal rod and cone cells.

REFERENCES

1. Peter, F., et al. 1992. Different sorting of Lys-Asp-Glu-Leu proteins in rat liver. *J. Biochem.* 267: 10631-10637.
2. Janson, I.M., et al. 1997. Phosphorylation of CaBP1 and CaBP2 by protein kinase CK2. *J. Biochem.* 121: 112-117.
3. Haeseleer, F., et al. 2000. Five members of a novel Ca²⁺-binding protein (CABP) subfamily with similarity to calmodulin. *J. Biol. Chem.* 275: 1247-1260
4. Kramer, B., et al. 2001. Functional roles and efficiencies of the thioredoxin boxes of calcium-binding proteins 1 and 2 in protein folding. *Biochem. J.* 357: 83-95.
5. Haeseleer, F., et al. 2004. Essential role of Ca²⁺-binding protein 4, a Cav1.4 channel regulator, in photoreceptor synaptic function. *Nat. Neurosci.* 7: 1079-1087.
6. Rieke, F., et al. 2008. Characterization of Ca²⁺-binding protein 5 knockout mouse retina. *Invest. Ophthalmol. Vis. Sci.* 49: 5126-5135.
7. SWISS-PROT/TrEMBL (P57796). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>
8. <http://harvester.embl.de/harvester/Q9NZ/Q9NZU7.htm>

SOURCE

CaBP (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CaBP1 of human 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-28085 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

CaBP (V-20) is recommended for detection of CaBP3 of human origin and CaBP1, 2, 5, and to a lesser extent, CaBP4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

CaBP (V-20) is also recommended for detection of CaBP3, CaBP1, 2, 5, and to a lesser extent, CaBP4 in additional species, including equine, canine, bovine, porcine and avian.

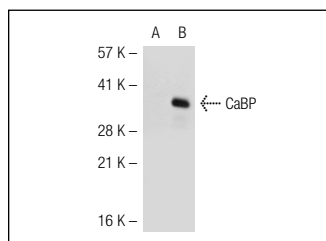
Molecular Weight of CaBP: 26 kDa.

Positive Controls: CaBP (h): 293T Lysate: sc-114090.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



CaBP (V-20): sc-28085. Western blot analysis of CaBP expression in non-transfected: sc-117752 (A) and human CaBP transfected: sc-114090 (B) 293T whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

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Try **CaBP (A-4): sc-365522** or **CaBP (F-5): sc-514449**, our highly recommended monoclonal alternatives to CaBP (V-20).