

CaBP1 (A-4): sc-365522

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 CaBP5 are restricted to retinal rod and cone cells.

REFERENCES

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- Janson, I.M., et al. 1997. Phosphorylation of CaBP1 and CaBP2 by protein kinase CK2. *J. Biochem.* 121: 112-117.
- 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.
- 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.
- Haeseleer, F., et al. 2004. Essential role of Ca²⁺-binding protein 4, a Ca_v1.4 channel regulator, in photoreceptor synaptic function. *Nat. Neurosci.* 7: 1079-1087.
- Rieke, F., et al. 2008. Characterization of Ca²⁺-binding protein 5 knockout mouse retina. *Invest. Ophthalmol. Vis. Sci.* 49: 5126-5135.
- SWISS-PROT/TrEMBL (P57796). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>

SOURCE

CaBP1 (A-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 131-165 within an internal region of CaBP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ lambda light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CaBP1 (A-4) is available conjugated to agarose (sc-365522 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365522 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365522 PE), fluorescein (sc-365522 FITC), Alexa Fluor® 488 (sc-365522 AF488), Alexa Fluor® 546 (sc-365522 AF546), Alexa Fluor® 594 (sc-365522 AF594) or Alexa Fluor® 647 (sc-365522 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365522 AF680) or Alexa Fluor® 790 (sc-365522 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365522 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

CaBP1 (A-4) is recommended for detection of CaBP1, CaBP2 and CaBP5 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).

CaBP1 (A-4) is also recommended for detection of CaBP1, CaBP2 and CaBP5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CaBP1 siRNA (h): sc-105171, CaBP1 shRNA Plasmid (h): sc-105171-SH and CaBP1 shRNA (h) Lentiviral Particles: sc-105171-V.

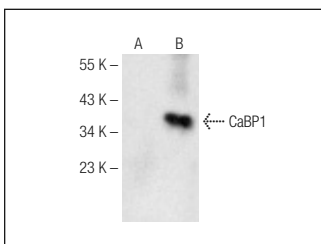
Molecular Weight of CaBP1: 26 kDa.

Positive Controls: CaBP1 (h): 293T Lysate: sc-114090.

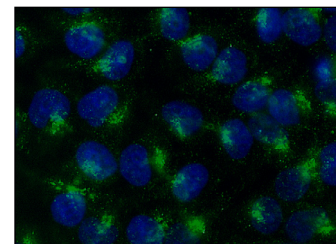
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGλ BP-HRP: sc-516132 or m-IgGλ BP-HRP (Cruz Marker): sc-516132-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGλ BP-FITC: sc-516185 or m-IgGλ BP-PE: sc-516186 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CaBP1 (A-4): sc-365522. Western blot analysis of CaBP1 expression in non-transfected: sc-117752 (A) and human CaBP1 transfected: sc-114090 (B) 293T whole cell lysates.



CaBP1 (A-4): sc-365522. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization. Note DAPI nuclear counterstain from UltraCruz® Hard-set Mounting Medium (sc-359850).

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.

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