

Goat Anti-CABP1 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1174a**Specification**

Goat Anti-CABP1 Antibody - Product Information

Application	WB
Primary Accession	O9NZU7
Other Accession	NP_004267 , 9478
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	39838

Goat Anti-CABP1 Antibody - Additional Information**Gene ID** 9478**Other Names**

Calcium-binding protein 1, CaBP1, Calbrain, Caldendrin, CABP1

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-CABP1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-CABP1 Antibody - Protein Information**Name** CABP1**Function**

Modulates calcium-dependent activity of inositol 1,4,5- triphosphate receptors (ITPRs) (PubMed:14570872). Inhibits agonist- induced intracellular calcium signaling (PubMed:15980432). Enhances inactivation and does not support calcium-dependent facilitation of voltage-dependent P/Q-type calcium channels (PubMed:11865310). Causes calcium-dependent facilitation and inhibits inactivation

of L-type calcium channels by binding to the same sites as calmodulin in the C- terminal domain of CACNA1C, but has an opposite effect on channel function (PubMed:15140941). Suppresses the calcium-dependent inactivation of CACNA1D (By similarity). Inhibits TRPC5 channels (PubMed:15895247). Prevents NMDA receptor-induced cellular degeneration. Required for the normal transfer of light signals through the retina (By similarity).

Cellular Location

Cytoplasm, cytoskeleton. Cytoplasm, perinuclear region. Cell membrane; Lipid-anchor; Cytoplasmic side. Golgi apparatus Postsynaptic density. Note=L-CaBP1 is associated most likely with the cytoskeletal structures, whereas S-CaBP1 is localized at or near the plasma membrane. [Isoform S-CaBP1]: Cytoplasm, cell cortex. Cell membrane; Lipid-anchor Note=S-CaBP1 is localized at or near the plasma membrane

Tissue Location

Retina and brain. Somatodendritic compartment of neurons. Calbrain was found exclusively in brain where it is abundant in the hippocampus, habenular area in the epithalamus and in the cerebellum

Goat Anti-CABP1 Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Goat Anti-CABP1 Antibody - Images



AF1174a staining (1 µg/ml) of human brain lysate (RIPA buffer, 30 µg total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

Goat Anti-CABP1 Antibody - Background

The product of this gene belongs to a subfamily of calcium binding proteins, which share similarity to calmodulin. Calcium binding proteins are an important component of calcium mediated cellular signal transduction. Expression of this gene was only detected in retina and brain. Study of the mouse homolog demonstrated that groups of cells expressing this protein are located in the center or inner border of the inner uncular layer of retina. Three alternatively spliced variants encoding different isoforms have been described.

Goat Anti-CABP1 Antibody - References

Structural insights into Ca^{2+} -dependent regulation of inositol 1,4,5-trisphosphate receptors by CaBP1. Li C, et al. J Biol Chem, 2009 Jan 23. PMID 19008222.
 Ca^{2+} binding protein-1 inhibits Ca^{2+} currents and exocytosis in bovine chromaffin cells. Chen ML, et al. J Biomed Sci, 2008 Mar. PMID 17960496.
Analysis of the interacting partners of the neuronal calcium-binding proteins L-CaBP1, hippocalcin, NCS-1 and neurocalcin delta. Haynes LP, et al. Proteomics, 2006 Mar. PMID 16470652.
Structural analysis of Mg^{2+} and Ca^{2+} binding to CaBP1, a neuron-specific regulator of calcium channels. Wingard JN, et al. J Biol Chem, 2005 Nov 11. PMID 16147998.
Molecular mechanism for divergent regulation of Cav1.2 Ca^{2+} channels by calmodulin and Ca^{2+} -binding protein-1. Zhou H, et al. J Biol Chem, 2005 Aug 19. PMID 15980432.