10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-Calbindin Antibody

Our Anti-Calbindin primary antibody from PhosphoSolutions is mouse monoclonal. It detects bovine, hu
Catalog # AN1323

Product Information

Application	WB, IHC
Primary Accession	P05937
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Clone Names	5A9
Calculated MW	30025

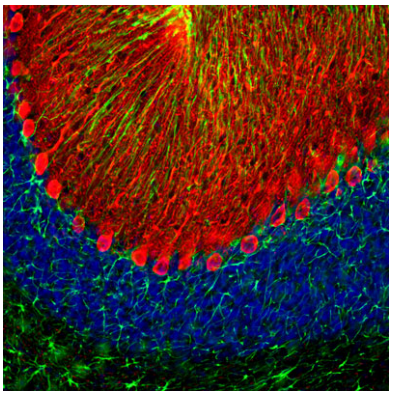
Additional Information

Gene ID	793
Other Names	avian-type antibody, CAB27 antibody, CALB 1 antibody, CALB antibody, CALB1 antibody, CALB1_HUMAN antibody, Calbindin 1 28kDa antibody, Calbindin antibody, Calbindin D28 antibody, D 28K antibody, D-28K antibody, D28K antibody, OTTHUMP00000166027 antibody, OTTHUMP00000225441 antibody, RTVL H protein antibody, Vitamin D dependent calcium binding protein antibody, Vitamin D dependent calcium binding protein avian type antibody, Vitamin D-dependent calcium-binding protein antibody
Target/Specificity	Calbindin (aka. calbindin D28k) is a member of the calcium-binding protein superfamily that includes calmodulin and troponin C. It is predominantly expressed in certain types of neurons, particularly in dendrites and perikarya of the cerebellum and is thought to buffer entry of calcium upon stimulation of glutamate receptors (Andressen et al., 1993). Calbindin has recently been shown to play a critical role in mitochondrial dysfunction and loss of synaptic proteins in vivo in an Alzheimer's disease mouse model (Kook et al., 2014).
Dilution	WB~~1:1000 IHC~~1:100~500
Format	Protein G Purified
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	Anti-Calbindin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

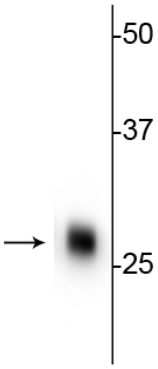
Background

Calbindin (aka. calbindin D28k) is a member of the calcium-binding protein superfamily that includes calmodulin and troponin C. It is predominantly expressed in certain types of neurons, particularly in dendrites and perikarya of the cerebellum and is thought to buffer entry of calcium upon stimulation of glutamate receptors (Andressen et al., 1993). Calbindin has recently been shown to play a critical role in mitochondrial dysfunction and loss of synaptic proteins in vivo in an Alzheimer's disease mouse model (Kook et al., 2014).

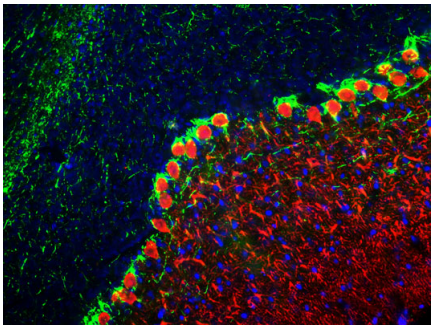
Images



Immunofluorescence of a section of rat cerebellum labeled with anti-calbindin (cat. AN1323, 1:2,000, red), colabeled with anti-GFAP (cat. 620-GFAP , 1:5000,green), and DAPI staining of nuclear DNA. The anti-calbindin prominently labels the dendrites and perikarya of Purkinje cells in the molecular layer of the cerebellum. The anti-GFAP labels the processes of Bergmann glia in the molecular layer and the astroglia in the granular and white layers of the cerebellum.



Western blot of rat cerebellar lysate showing specific immunolabeling of the ~ 28 kDa calbindin protein.



Immunofluorescence of a section of rat cerebellum showing specific labeling of calbindin (cat. AN1323, 1:1000, red) in the dendrites of Purkinje cells. Axons are labeled green with anti-Neurofilament H antibody (cat. 1451-NFH , 1:25,000), and additional nuclear staining with DAPI.