

Anti-Calbindin Antibody [4H7] (A85360)

Specifications:

Name: Anti-Calbindin Antibody [4H7]

Description: Mouse monoclonal (4H7) antibody to Calbindin.

Specificity: This antibody binds Calbindin cleanly but does not cross-react with the related Calretinin

and Parvalbumin proteins. It is therefore ideally suited for identifying and subclassifying

cortical GABAergic neurons.

Applications: WB, ICC/IF, IHC

Recommended Dilutions: WB: 1:1,000-1;5,000, ICC/IF: 1:1,000, IHC: 1:1,000

Reactivity: Human, Bovine, Porcine, Rat, Mouse

Immunogen: Recombinant full-length human Calbindin, expressed in and purified from E. coli.

Host: Mouse

Clonality: Monoclonal

Clone ID: 4H7

Isotype: IgG1

Conjugate: Unconjugated

Purification: Immunogen affinity purification.

Concentration: 1 mg/ml

Molecular Weight: 28 kDa

Product Form: Liquid

Formulation: Supplied in Phosphate Buffered Saline with 50% Glycerol and 5mM Sodium Azide.

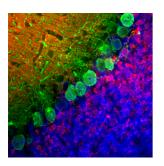
Storage: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Disclaimer: This product is for research use only. It is not intended for diagnostic or therapeutic use.

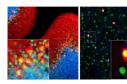


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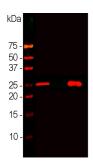
Images:



Immunofluorescent analysis of rat brain cerebellum section stained with Anti-Calbindin Antibody (1:1,000 | green) and Anti-Calretinin (A85364 | 1:5,000 | red). The blue is DAPI staining of nuclear DNA. Following transcardial perfusion with 4% paraformaldehyde, brain was post fixed for 24 hours, cut to 45 μ M, and free-floating sections were stained with the above antibodies. Anti-Calbindin Antibody prominently labels the dendrites and perikarya of Purkinje cells in the molecular layer of cerebellum. In contrast the Anti-Calretinin Antibody stains granule cells, in the granualar layer, and their processes in the molecular layer.



Rat brain cerebellum (Middle) and cortex (Right) sections ($45 \, \mu M$; fixed by transcardial perfusion with 4% paraformaldehyde) were co-stained with Anti-Calbindin Antibody (red) and Anti-MeCP2 Antibody (A85427 | green). Calbindin is predominantly expressed in the dendrites and perikarya of Purkinje cells in the molecular layer of cerebellum, and selectively expressed in certain type of interneurons (calbindin-positive interneuron) in the cortex. MeCP2 is universally expressed in the nuclei of almost all neurons. As a result, calbindin-expressing cell is strongly labeled with red in soma, but the nucleus appears to be yellow. Blue is DAPI nucleus staining. Insets are high magnification images of the boxed areas.



Western blot analysis of different neuronal tissue lysates using Anti-Calbindin Antibody (1:2,000): [1] protein standard, [2] rat cerebellum, [3] pig hippocampus, and [4] cow cerebellum. Bands at ~25 kDa corresponds to the calbindin protein, heavily expressed in the cerebellum but a very minor component of hippocampus.



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Images continued:



Western blot analysis of Anti-Calbindin Antibody. Blots of cow cerebellum lysate were probed with Anti-Calbindin Antibody. The antibody binds strongly and specifically to the calbindin band at 28 kDa.