

Calbindin D28k

Cat.No. 214 005; Polyclonal Guinea pig antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Guinea pig serum albumin was added for stabilization. For reconstitution add 50 µl H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 up to 1 : 5000 (AP staining) IP: yes ICC: 1 : 500 IHC: 1 : 200 up to 1 : 500 IHC-P/FFPE: 1 : 500
Immunogen	Recombinant protein corresponding to AA 3 to 251 from human CalbindinD28k (UniProt Id: P05937)
Reactivity	Reacts with: human (P05937), rat (P07171), mouse (P12658), monkey, ape, cow. Other species not tested yet.
Specificity	Specific for calbindin D28k.
matching control	214-OP

TO BE USED IN VITRO / FOR RESEARCH ONLY

NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Two isoforms of the vitamin D-dependent Ca-binding proteins have been described so far: **calbindin D28k**, also referred to as CALB 1, D-28k, and CAB 27, and calbindin D29k, also known as calretinin. These proteins are expressed in cells that have to handle a high calcium influx such as brain, bone, teeth, inner ear and others. Calbindins are believed to regulate cellular activity by suppressing or buffering intracellular calcium

Selected References SYSY Antibodies

Laminin β2 Chain Regulates Retinal Progenitor Cell Mitotic Spindle Orientation via Dystroglycan.

Serjanov D, Bachay G, Hunter DD, Brunken WJ

The Journal of neuroscience : the official journal of the Society for Neuroscience (2018) : . **IHC; tested species: mouse**

Selected General References

Influence of the "open field" exposure on calbindin D28K, calretinin, and parvalbumin containing cells in the rat midbrain - developmental study.

Klejbor I, Ludkiewicz B, Domaradzka-Pytel B, Spodnik JH, Dziewiatkowski J, Morys J

Journal of physiology and pharmacology : an official journal of the Polish Physiological Society (2006) 57(1): 149-64.

Calbindin D-28 and microtubule-associated protein-2: their use as sensitive immunohistochemical markers of cerebellar neurotoxicity in a regulatory toxicity study.

Haworth R, McCormack N, Selway S, Pilling AM, Williams TC

Experimental and toxicologic pathology : official journal of the Gesellschaft fur Toxikologische Pathologie (2006) 57(5-6): 419-26.

Mutational analysis of dendritic Ca²⁺ kinetics in rodent Purkinje cells: role of parvalbumin and calbindin D28k.

Schmidt H, Stiefel KM, Racay P, Schwaller B, Eilers J

The Journal of physiology (2003) 551(Pt 1): 13-32.

Calbindin in cerebellar Purkinje cells is a critical determinant of the precision of motor coordination.

Barski JJ, Hartmann J, Rose CR, Hoebeek F, Mörl K, Noll-Hussong M, De Zeeuw CI, Konnerth A, Meyer M

The Journal of neuroscience : the official journal of the Society for Neuroscience (2003) 23(8): 3469-77.

'New' functions for 'old' proteins: the role of the calcium-binding proteins calbindin D-28k, calretinin and parvalbumin, in cerebellar physiology. Studies with knockout mice.

Schwaller B, Meyer M, Schiffmann S

Cerebellum (London, England) (2002) 1(4): 241-58.

Synthesis of calbindin-D28K during mineralization in human bone marrow stromal cells.

Faucheux C, Bareille R, Amedee J

The Biochemical journal (1998) 333 (Pt 3): 817-23.

Calbindin-D in peripheral nerve cells is vitamin D and calcium dependent.

Lee YS, Taylor AN, Reimers TJ, Edelstein S, Fullmer CS, Wasserman RH

Proceedings of the National Academy of Sciences of the United States of America (1987) 84(20): 7344-8.