

 Rudolf-Wissell-Str. 28

 37079 Göttingen, Germany

 Phone:
 +49 551-50556-0

 Fax:
 +49 551-50556-384

 E-mail:
 sales@sysy.com

 Web:
 www.sysy.com

Calretinin

Cat.No. 214 111C2; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	100 μg purified IgG, lyophilized, fluorescence-labeled with Oyster [®] 488. Rabbit serum albumin was added for stabilization. For reconstitution add 100 μl H ₂ O to get a 1mg/ml solution in PBS. Either add 1:1 (v/v) glycerol, then aliquot and store at -20°C until use, or store aliquots at -80°C without additives. Reconstitute immediately upon receipt! Avoid bright light when working with the antibody to minimize photo bleeching of the fluorescent dye.The mounting agent Aquatex [®] (Merck Chemicals) is not compatible with Oyster dyes!
Applications	WB: N/A IP: N/A ICC: 1 : 500 IHC: 1 : 200 up to 1 : 500 IHC-P/FFPE: not tested yet
Label	Oyster 488
Clone	37C9
Subtype	IgG1 (κ light chain)
Immunogen	Recombinant protein corresponding to AA 1 to 271 from mouse Calretinin (UniProt Id: Q08331)
Epitop	Epitop: AA 1 to 271 from mouse Calretinin (UniProt Id: Q08331)
Reactivity	Reacts with: rat (P47728), mouse (Q08331), human (P22676), zebrafish. Other species not tested yet.
Specificity	Specific for calretinin / calbindin D29k.
matching control	214-1P

TO BE USED IN VITRO / FOR RESEARCH ONLY NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

Two isoforms of the the vitamin D-dependent Ca-binding proteins have been described so far: **Calretinin**, also referred to as calbindin D29k, calbindin 2, CALB 2, CAL 2, and CAB 29, and calbindin D28k. 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 intracellur calcium.

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, Moryś 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.