



Calretinin

Cat.No. 214 104; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µl antiserum, lyophilized. For reconstitution add 100 µl H ₂ O, then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 (AP staining) IP: yes ICC: 1 : 500 IHC: 1 : 500 IHC-P/FFPE: 1 : 200
Immunogen	Recombinant protein corresponding to AA 1 to 271 from mouse Calretinin (UniProt Id: Q08331)
Reactivity	Reacts with: rat (P47728), mouse (Q08331), chicken, zebrafish. Other species not tested yet.
Specificity matching control	Specific for calretinin. 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 intracellular calcium.

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

Selected References SYSY Antibodies

- Cell age-specific vulnerability of neurons to anesthetic toxicity.
Hofacer RD, Deng M, Ward CG, Joseph B, Hughes EA, Jiang C, Danzer SC, Loepke AW
Annals of neurology (2013) 73(6): 695-704. **IHC**
- Non-canonical heterogeneous cellular distribution and co-localization of CaMKIIα and CaMKIIβ in the spinal superficial dorsal horn.
Larsson M
Brain structure & function (2018) 223(3): 1437-1457. **IHC; tested species: rat**
- VIP-immunoreactive interneurons within circuits of the mouse basolateral amygdala.
Rhomberg T, Rovira-Esteban L, Vikár A, Paradiso E, Kremser C, Nagy-Pál P, Papp OI, Tasan R, Erdélyi F, Szabó G, Ferraguti F, et al.
The Journal of neuroscience : the official journal of the Society for Neuroscience (2018) : . **IHC; tested species: mouse**
- Multiple amygdaloid divisions of arcopallium send convergent projections to the nucleus accumbens and neighboring subpallial amygdala regions in the domestic chicken: a selective pathway tracing and reconstruction study.
Hanics J, Teleki G, Alpár A, Székely AD, Csillag A
Brain structure & function (2017) 222(1): 301-315. **IHC**
- Developmental abnormalities of cortical interneurons precede symptoms onset in a mouse model of Rett syndrome.
Tomassy GS, Morello N, Calcagno E, Giustetto M
Journal of neurochemistry (2014) 131(1): 115-27. **IHC; tested species: mouse**
- Dentate gyrus network dysfunctions precede the symptomatic phase in a genetic mouse model of seizures.
Toader O, Forte N, Orlando M, Ferrea E, Raimondi A, Baldelli P, Benfenati F, Medrihan L
Frontiers in cellular neuroscience (2013) 7: 138. **IHC; tested species: mouse**
- Loss of Mecp2 Causes Atypical Synaptic and Molecular Plasticity of Parvalbumin-Expressing Interneurons Reflecting Rett Syndrome-Like Sensorimotor Defects.
Morello N, Schina R, Pilotto F, Phillips M, Melani R, Plicato O, Pizzorusso T, Pozzo-Miller L, Giustetto M
eNeuro () 5(5): . **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, 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, Stiebel 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 Cl, 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.
Faucheuix 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.