Calbindin D28k

Cat.No. 214 004; Polyclonal Guinea pig antibody, 100 µl antiserum (lyophilized)

Data Sheet

<table>
<thead>
<tr>
<th>Reconstitution/Storage</th>
<th>100 µl antiserum, lyophilized. For reconstitution add 100 µl H2O, then aliquot and store at -20°C until use.</th>
</tr>
</thead>
</table>
| 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 : 200 |
| 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       | 214-0P |

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

Selected References SYSY Antibodies

Cell age-specific vulnerability of neurons to anesthetic toxicity.  

Defining the Vulnerability Window of Anesthesia-Induced Neuroapoptosis in Developing Dentate Gyrus Granule Cells - A Transgenic Approach Utilizing POMC-EGFP Mice.  
Neuroscience (2019). IHC; tested species: mouse

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

Hypothalamic CNF1 volume transmission shapes cortical noradrenergic excitability upon acute stress.  
The EMBO journal (2018). IHC; tested species: mouse

Abolished perineuronal nets and altered parvalbumin-immunoreactivity in the nucleus reticularis thalami of wildtype and 3xTg mice after experimental stroke.  
Härting W, Appel S, Suttkus A, Grosje M, Michalski D  
Neuroscience (2016) 337: 66-87. IHC

Development of early-born y-Aminobutyric acid neurons in mouse hippocampus from embryogenesis to adulthood.  

An excitatory GABA loop operating in vivo.  

Functional and Physical Interaction of Diacylglycerol Kinase η with Protein Kinase Cα Is Required for Cerebellar Long-Term Depression.  
Lee D, Yamamoto Y, Kim E, Tanaka-Yamamoto K  

Raf kinase inhibitory protein is required for cerebellar long-term synaptic depression by mediating PKC-dependent MAPK activation.  

Postmitotic neurons develop a p21-dependent senescence-like phenotype driven by a DNA damage response.  

Spontaneous activity promotes synapse formation in a cell-type-dependent manner in the developing retina.  
Soto F, Ma X, Cecil JL, Vo BQ, Culican SM, Kerschensteiner D  

Slow age-dependent decline of doublecortin expression and BrdU labeling in the forebrain from lesser hedgehog tenrecs.  
Haworth R, McCormack N, Selway S, Pilling AM, Williams TC  

Two isoforms of the vitamin D-dependent Ca-binding proteins have been described so far: calbindin D28k, also referred to as CALB1, D-28k, and CAB27, 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.