

Parvalbumin

Cat.No. 195 011C3; Monoclonal mouse antibody, 100 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized, fluorescence-labeled with Oyster [®] 550. 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 bleaching of the fluorescent dye. The mounting agent Aquatex [®] (Merck Chemicals) is not compatible with Oyster dyes!
Applications	WB: N/A IP: N/A ICC: not tested yet IHC: 1 : 200 up to 1 : 500 IHC-P/FFPE: not tested yet
Label	Oyster 550
Clone	58E1
Subtype	IgG1 (κ light chain)
Immunogen	Recombinant protein corresponding to AA 1 to 133 from rat Parvalbumin
Epitop	Epitop: AA 1 to 133 from rat Parvalbumin
Reactivity	Reacts with: rat (P02625), mouse (P32848). No signal: zebrafish. Other species not tested yet.
Specificity	Specific for Parvalbumin.
matching control	195-0P

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

Parvalbumin is a small, acidic, calcium binding protein and belongs to the family of EF hand proteins. The protein is found in skeletal muscle and the brain of vertebrates where it locates to a specific population of GABAergic interneurons. This subset of neurons may contribute to maintaining the balance between excitation and inhibition in the cortex and the hippocampus.

Selected References SYSY Antibodies

Brain volumetric alterations accompanied with loss of striatal medium-sized spiny neurons and cortical parvalbumin expressing interneurons in Brd1+/- mice.
Qvist P, Eskildsen SF, Hansen B, Baragji M, Ringgaard S, Roovers J, Paternoster V, Molgaard S, Corydon TJ, Stødkilde-Jørgensen H, Glerup S, et al.
Scientific reports (2018) 8(1): 16486. **IHC; tested species: mouse**

Selected General References

Quantitative analysis of parvalbumin-immunoreactive cells in the human epileptic hippocampus.
Andrioli A, Alonso-Nanclares L, Arellano JI, DeFelipe J
Neuroscience (2007) 149(1): 131-43.

Expression patterns of calretinin, calbindin and parvalbumin and their colocalization in neurons during development of Macaca monkey retina.

Hendrickson A, Yan YH, Erickson A, Possin D, Pow D
Experimental eye research (2007) 85(5): 587-601.

Ultrastructural study of gap junctions between dendrites of parvalbumin-containing GABAergic neurons in various neocortical areas of the adult rat.

Fukuda T, Kosaka T
Neuroscience (2003) 120(1): 5-20.

Calcium-binding protein parvalbumin-immunoreactive neurons in the rat olfactory bulb. 2. Postnatal development.
Kosaka K, Heizmann CW, Kosaka T
Experimental brain research (1994) 99(2): 205-13.

Immunocytochemical localization of the plasma membrane calcium pump, calbindin-D28k, and parvalbumin in Purkinje cells of avian and mammalian cerebellum.

Tolosa de Talamoni N, Smith CA, Wasserman RH, Beltramino C, Fullmer CS, Penniston JT
Proceedings of the National Academy of Sciences of the United States of America (1993) 90(24): 11949-53.

Neostriatal GABAergic interneurons contain NOS, calretinin or parvalbumin.
Kubota Y, Mikawa S, Kawaguchi Y
Neuroreport (1993) 5(3): 205-8.