SYSY Synaptic Systems

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

Parvalbumin

Cat.No. 195-0P; control protein, 100 µg protein (lyophilized)

Data Sheet

Reconstitution/ Storage	100 μg protein, lyophilized. For reconstitution add 100 $\mu l H_2O$ to get a 1mg/ml solution in TBS. Then aliquot and store at -20°C until use.
Immunogen	Recombinant protein corresponding to AA 1 to 133 from rat Parvalbumin
Recommended dilution	Optimal concentrations should be determined by the end-user.
matching antibodies	195 002, 195 004, 195 006, 195 011, 195 011BT, 195 011C2, 195 011C3, 195 011C5
Remarks	This control protein consists of the full length rat parvalbumin that has been used for immunization. It has been tested in preadsorption experiments and blocks efficiently and specifically the corresponding signal in Western blots. The amount of protein needed for efficient blocking depends on the titer and on the affinity of the antibody to the antigen.

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 interneurones. This subset of neurons may contribute to maintaining the balance between excitation and inhibition in the cortex and the hippocampus.

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