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

Cannabinoid receptor CB1-R

Cat.No. 258 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	**WB**: 1 : 1000 (see remarks) **IP**: not tested yet **ICC**: 1 : 500 **IHC**: 1 : 500 **IHC-P/FFPE**: 1 : 500
Immunogen	Recombinant protein corresponding to AA 401 to 473 from rat CB1-R (UniProt Id: P20272)
Reactivity	Reacts with: rat (P20272), mouse (P47746). Other species not tested yet.
Specificity	Specific for CB1-R. (K.O. verified)
Remarks	**WB**: Unboiled samples are recommended.

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

The **cannabinoid receptor CB1-R** is a G-protein coupled receptor (GPCR) with 7 transmembrane domains. It is responsive to tetrahydrocannabinol, the psychotropic component of marijuana. Endogenous cannabinoids (endocannabinoids) are released from postsynaptic neurons and act onto presynaptic cannabinoid receptors where they play important physiological roles in synaptic plasticity, analgesia, appetite, and neuroprotection.

Selected References SYSY Antibodies

Involvement of the endocannabinoid system in the physiological response to transient common carotid artery occlusion and reperfusion.
Quartu M, Poddighe L, Melis T, Serra MP, Boi M, Lisai S, Carta G, Murru E, Muredda L, Collu M, Banni S, et al.
Lipids in health and disease (2017) 16(1): 14. **WB, IHC**

Subventricular zone neural progenitors reverse TNF-alpha effects in cortical neurons.
Morini R, Ghirardini E, Butti E, Verderio C, Martino G, Matteoli M
Stem cell research & therapy (2015) 6: 166. **ICC**

An opposing function of paralogs in balancing developmental synapse maturation.
Favaro PD, Huang X, Hosang L, Stodieck S, Cui L, Liu YZ, Engelhardt KA, Schmitz F, Dong Y, Löwel S, Schlüter OM, et al.
PLoS biology (2018) 16(12): e2006838. **WB; tested species: mouse**

Active zone proteins RIM1αβ are required for normal corticostriatal transmission and action control.
Kupferschmidt DA, Augustin SM, Johnson KA, Lovinger DM
The Journal of neuroscience : the official journal of the Society for Neuroscience (2018) : . **IHC; tested species: mouse**

NPAS4 recruits CCK basket cell synapses and enhances cannabinoid-sensitive inhibition in the mouse hippocampus.
Hartzell AL, Martyniuk KM, Brigidi GS, Heinz DA, Djaja NA, Payne A, Bloodgood BL
eLife (2018) 7: . **IHC; tested species: mouse**

Differential role of GABAA receptors and neuroligin 2 for perisomatic GABAergic synapse formation in the hippocampus.
Panzanelli P, Früh S, Fritschy JM
Brain structure & function (2017) 222(9): 4149-4161. **IHC; tested species: mouse**

Neuronal Dystroglycan Is Necessary for Formation and Maintenance of Functional CCK-Positive Basket Cell Terminals on Pyramidal Cells.
Früh S, Romanos J, Panzanelli P, Bürgisser D, Tyagarajan SK, Campbell KP, Santello M, Fritschy JM
The Journal of neuroscience : the official journal of the Society for Neuroscience (2016) 36(40): 10296-10313. **IHC; tested species: mouse**

Selected General References

Dynamic imaging of cannabinoid receptor 1 vesicular trafficking in cultured astrocytes.
Osborne KD, Lee W, Malarkey EB, Irving AJ, Parpura V
ASN neuro (2009) 1(5): .

CB1 cannabinoid receptor activity is modulated by the cannabinoid receptor interacting protein CRIP 1a.
Niehaus JL, Liu Y, Wallis KT, Egertová M, Bhartur SG, Mukhopadhyay S, Shi S, He H, Selley DE, Howlett AC, Elphick MR, et al.
Molecular pharmacology (2007) 72(6): 1557-66.

The CB1 cannabinoid receptor is the major cannabinoid receptor at excitatory presynaptic sites in the hippocampus and cerebellum.
Kawamura Y, Fukaya M, Maejima T, Yoshida T, Miura E, Watanabe M, Ohno-Shosaku T, Kano M
The Journal of neuroscience : the official journal of the Society for Neuroscience (2006) 26(11): 2991-3001.

An amino-terminal variant of the central cannabinoid receptor resulting from alternative splicing.
Shire D, Carillon C, Kaghad M, Calandra B, Rinaldi-Carmona M, Le Fur G, Caput D, Ferrara P
The Journal of biological chemistry (1995) 270(8): 3726-31.

Structure of a cannabinoid receptor and functional expression of the cloned cDNA.
Matsuda LA, Lolait SJ, Brownstein MJ, Young AC, Bonner TI
Nature (1990) 346(6284): 561-4.

Cannabinoid inhibition of adenylate cyclase. Biochemistry of the response in neuroblastoma cell membranes.
Howlett AC
Molecular pharmacology (1985) 27(4): 429-36.