Synaptic Systems

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m-AChR-2

Cat.No. 223 017; Monoclonal rat antibody, 100 µg purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	100 µg purified IgG, lyophilized. For reconstitution add 100 µl H_2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	**WB**: 1 : 1000 (AP staining) **IP**: not tested yet **ICC**: not tested yet **IHC**: 1 : 100 **IHC-P/FFPE**: not tested yet
Clone	2-1-155
Subtype	IgG1
Immunogen	207 to 388 from human m-AChR-2 (UniProt Id: P08172)
Epitop	Epitop: AA 207 to 388 from human m-AChR-2 (UniProt Id: P08172)
Reactivity	Reacts with: human (P08172), rat (P10980), mouse (Q9ERZ4). Other species not tested yet.
Specificity	Specific for muscarinic acetylcholine receptor 2.
Remarks	This antibody detects also higher molecular weight bands, depending on the glycosilation state of the protein.The protein tends to aggregate after boiling, making it necessary to run SDS-PAGE with non-boiled samples.

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

The **m**uscarinic **a**cetyl**ch**oline **r**eceptors comprise 5 members (m1 - m5) and mediate many acetylcholine driven cellular actions such as adenylate cyclase inhibition, phosphoinositide degeneration and potassium channel mediation. They belong to a larger family of G protein-coupled receptors. Muscarinic acetylcholine receptor **2** has been suggested to function as a presynaptic autoreceptor that inhibits acetylcholine release in the basal forebrain. It is also expressed in cardiac tissue where it is involved in mediation of bradycardia and a decrease in cardiac contractility.

Selected References SYSY Antibodies

Evaluation of muscarinic agonist-induced analgesia in muscarinic acetylcholine receptor knockout mice.
Duttaroy A, Gomeza J, Gan JW, Siddiqui N, Basile AS, Harman WD, Smith PL, Felder CC, Levey AI, Wess J
Molecular pharmacology (2002) 62(5): 1084-93. **IHC**

Subcellular redistribution of m2 muscarinic acetylcholine receptors in striatal interneurons in vivo after acute cholinergic stimulation.
Bernard V, Laribi O, Levey AI, Bloch B
The Journal of neuroscience : the official journal of the Society for Neuroscience (1998) 18(23): 10207-18. **IHC**

Light and electron microscopic study of m2 muscarinic acetylcholine receptor in the basal forebrain of the rat.
Levey AI, Edmunds SM, Hersch SM, Wiley RG, Heilman CJ
The Journal of comparative neurology (1995) 351(3): 339-56. **IHC**

Selected General References

Altered striatal function and muscarinic cholinergic receptors in acetylcholinesterase knockout mice.
Volpicelli-Daley LA, Hrabovska A, Duysen EG, Ferguson SM, Blakely RD, Lockridge O, Levey AI
Molecular pharmacology (2003) 64(6): 1309-16.

Characterization of central inhibitory muscarinic autoreceptors by the use of muscarinic acetylcholine receptor knock-out mice.
Zhang W, Basile AS, Gomeza J, Volpicelli LA, Levey AI, Wess J
The Journal of neuroscience : the official journal of the Society for Neuroscience (2002) 22(5): 1709-17.

Association of m1 and m2 muscarinic receptor proteins with asymmetric synapses in the primate cerebral cortex: morphological evidence for cholinergic modulation of excitatory neurotransmission.
Mrzljak L, Levey AI, Goldman-Rakic PS
Proceedings of the National Academy of Sciences of the United States of America (1993) 90(11): 5194-8.