



Polyclonal Anti- Muscarinic Acetylcholine Receptor M₂, **CHRM2**

Catalogue No. PA1325

Lot No. 013101252564

Ig type rabbit IgG

Size 100µg/vial

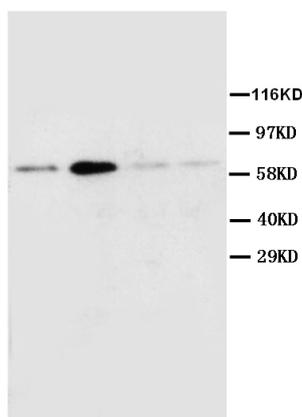
Specificity

Rat.

No cross reactivity with other proteins.

Recommended application

Western blot



Lane 1 : Rat brain tissue Lysate
 Lane 2 : Rat brain tissue Lysate
 Lane 3 : Rat Medulla oblongata tissue Lysate
 Lane 4 : Rat Medulla oblongata tissue Lysate

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminal of human CHRM2(451-466aa), identical to the related rat sequence.

Purity

Immunogen affinity purified.

Application

	Concentration	Tested Species	Concluded Species	Antigen Retrieval
WB	1µg/ml	Rat	Ms	-
IHC-P	-	-	-	-
IHC-F	-	-	-	-
ICC	-	-	-	-

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Reconstitution

0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for longer time.

To reorder contact us at:

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BACKGROUND

The muscarinic acetylcholine receptor M₂, also known as the cholinergic receptor, muscarinic 2, is a muscarinic acetylcholine receptor. The M₂ muscarinic receptors are located in the heart, where they act to slow the heart rate down to normal sinus rhythm after stimulatory actions of the sympathetic nervous system, by slowing the speed of depolarization. The CHRM2 gene inhibits the release of acetylcholine from cholinergic fibers in the lungs and elsewhere. In airway parasympathetic neurons, it is decreased by viral infections and by interferon-gamma, increasing acetylcholine release. This gene is thought to be involved in neuronal excitability, synaptic plasticity and feedback regulation of acetylcholine release and has previously been implicated in higher cognitive processing. In a sample of 667 individuals from 304 families, Gosso MF et al. genotyped three single-nucleotide polymorphisms (SNPs) in the CHRM2 gene on 7q31-35. CHRM2 is implicated in memory and cognition, functions impaired in many neuropsychiatric disorders. Wang et al. evidence of common and specific genetic effects: association of the muscarinic acetylcholine receptor M₂ (CHRM2) gene with alcohol dependence and major depressive syndrome.

REFERENCE

1. Zhou, C., Fryer, A. D., Jacoby, D. B. Structure of the human M(2) muscarinic acetylcholine receptor gene and its promoter. *Gene* 271: 87-92, 2001.
2. Gosso MF, van Belzen M, de Geus EJ, *et al.* (2006). "Association between the CHRM2 gene and intelligence in a sample of 304 Dutch families". *Genes, Brain and Behavior* 5 (8): 577–584.
3. Wang, J. C., Hinrichs, A. L., Stock, H., Budde, J., Allen, R., Bertelsen, S., Kwon, J. M., Wu, W., Dick, D. M., Rice, J., Jones, K., Nurnberger, J. I., Jr., and 10 others Evidence of common and specific genetic effects: association of the muscarinic acetylcholine receptor M₂ (CHRM2) gene with alcohol dependence and major depressive syndrome. *Hum. Molec. Genet.* 13: 1903-1911, 2004.