

## Product datasheet for **TA328609**

### CHRM1 Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)RKIPKRPGSVHRTPSR, corresponding to amino acid residues 443-458 of human M1 Muscarinic Receptor. Intracellular, C-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN <sub>3</sub> .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	cholinergic receptor muscarinic 1
Database Link:	<a href="#">NP_000729</a> <a href="#">Entrez Gene 12669 Mouse</a> <a href="#">Entrez Gene 25229 Rat</a> <a href="#">Entrez Gene 1128 Human</a> <a href="#">P11229</a>



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**Background:**

The action of the neurotransmitter acetylcholine is mediated through two types of receptors, the ionotropic nicotinic receptors and the metabotropic muscarinic receptors. The muscarinic receptors belong to the superfamily of 7-TM G-protein coupled receptors. Five subtypes of muscarinic receptors have been cloned and named m1-m5. The muscarinic receptors are widely distributed throughout the body, but are predominantly expressed within the parasympathetic nervous system and exert both excitatory and inhibitory control over central and peripheral tissues. Muscarinic receptors participate in a number of physiological functions such as regulation of heart rate, muscle contraction, cognition, sensory processing and motor control. They also participate in learning and memory processing. The m1 receptors are the most abundant muscarinic subtype in the cortex and striatum. m1 receptors are also localized in the myenteric plexus where they function as autoreceptors to enhance the release of Ach from the nerves. The m1, m3 and m5 receptors, which are coupled to Gq/11 proteins, can protect cells from apoptosis induced by DNA damage. The signaling mechanism that mediates this anti-apoptotic response is still poorly understood. However, it was recently reported that a poly-basic motif in the C-terminus tail of the m1, m3 and m5 receptors is an essential element for the anti-apoptotic response of those receptors.

**Synonyms:**

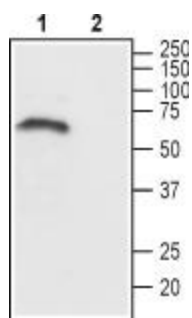
HM1; M1; M1R

**Protein Families:**

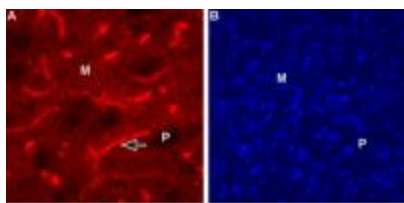
Druggable Genome, GPCR, Transmembrane

**Protein Pathways:**

Calcium signaling pathway, Neuroactive ligand-receptor interaction, Regulation of actin cytoskeleton

**Product images:**

Western blot analysis of rat brain lysate: 1. Anti-M1 Muscarinic Receptor (443-458) antibody, (1:200). 2. Anti-M1 Muscarinic Receptor (443-458) antibody, preincubated with the control antigen.



Expression of M1 receptor in mouse striatum. Immunohistochemical staining of mouse striatum using Anti-M1 Muscarinic Receptor (443-458) antibody, (1:100). M1 Muscarinic Receptor staining (red) appears in the matrix (M), not in the patches (P). Blood vessels in the matrix (arrow) are also stained. DAPI is used as the counterstain (blue).