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# Product datasheet for TA328696

## CHRM2 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:** | GST fusion protein with a sequence VANQDPVSPSLVQGRIVKPN NNNMPSSDDGLEHNKIQNGKAPRDPVTENCVQGEEKESSNDSTSV SAVASNMRDDEITQDENTVSTSLGHSKDENSKQTCIRIGTKTPKS DSCTPTNTTVEVVGSSGQNGDE, corresponding to amino acid.Ã?Â residues 225-356 of human m2. 3rd intracellular loo |
| **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% NaN3. |
| **Reconstitution Method:** | Add 50 ul double distilled water (DDW) to the lyophilized powder. |
| **Purification:** | The serum was depleted of anti-GST antibodies by affinity chromatography on immobilized GST, and then anti-m2 was affinity purified on immobilized m2-GST. |
| **Conjugation:** | Unconjugated |
| **Storage:** | Store at -20°C as received. |
| **Stability:** | Stable for 12 months from date of receipt. |
| **Gene Name:** | cholinergic receptor muscarinic 2 |
| **Database Link:** | NP_001006627<br>Entrez Gene 81645 RatEntrez Gene 243764 MouseEntrez Gene 1129 Human<br>P08172 |

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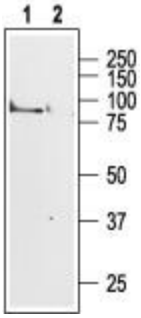
**Background:** The action of the neurotransmitter acetylcholine is mediated through two types of receptors, the ionotrophic nicotinic receptors and the metabotrophic muscarinic receptors. The muscarinic receptors belong to the superfamily of 7-TM G-protein-coupled receptors. Five subtypes of muscarinic receptors have been cloned and are named m1-m5. The muscarinic receptors are widely distributed throughout the body, but are predominantly expressed within the parasympathetic nervous system and exerts 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 m2 receptor is considered to be the predominant muscarinic receptor that is expressed in cardiac muscle. The m2 and m4 receptors mediate Ca2+ channel inhibition and Kir3 K+ channel activation by directly binding the Gbg subunit to the channel. Stimulation of the m2 receptor by acetylcholine in the heart results in activation of the Kir3.1/Kir3.4 channels causing a slowing in heart beat.

**Synonyms:** HM2

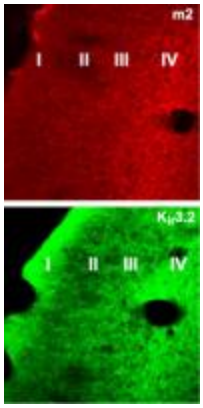
**Protein Families:** Druggable Genome, GPCR, Transmembrane

**Protein Pathways:** Calcium signaling pathway, Neuroactive ligand-receptor interaction, Regulation of actin cytoskeleton

## Product images:




Western blot analysis of rat brain membranes: 1. Anti-M2 Muscarinic Receptor antibody, (1:200). 2. Anti-M2 Muscarinic Receptor antibody, preincubated with the control fusion protein antigen.




IHC staining of mouse parieto-temporal cortex frozen sections (non-consecutive) using Anti-Kir3.2 (GIRK2) antibody, (1:100) and Anti-M2 Muscarinic Receptor antibody, (1:100). M2 Muscarinic Receptor staining (red) was dense in layer IV, with fibers climbing to layers II-III. Kir3.2 K+ channel staining (green) was dense in layers IV and I. Overlapping expression of Kir3.2 channel and M2 muscarinic Receptor is seen in cortical layers.