3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-Muscarinic Acetylcholine Receptor M_2
produced in rabbit, affinity isolated antibody

Catalog Number **M9693**

Product Description

Anti-Muscarinic Acetylcholine Receptor M_2 is produced in rabbit using as immunogen a synthetic peptide conjugated to KLH. The peptide corresponds to the 3rd cytoplasmic loop of human muscarinic acetylcholine receptor M_2. The antibody is affinity purified using the immunizing peptide immobilized on agarose.

Anti-Muscarinic Acetylcholine Receptor M_2 specifically recognizes human muscarinic acetylcholine receptor M_2 by immunohistochemistry with formalin fixed paraffin embedded tissues. The immunizing peptide has 100% homology with mouse and rat gene. Other species reactivity has not been confirmed.

The M_2 receptor is expressed in various regions of the brain including the cerebellum, cerebral cortex, hippocampus, medulla, striatum, and thalamus, and in lung and prostate. M_2 receptors represent over 90% of the muscarinic receptors in heart.

One major role of M_2 receptors is to control neurotransmitter release. Muscarinic receptors may be important in changes associated with learning and memory. M_2 receptors mediate muscarinic LTP. Another functional area where both M_1 and M_2 receptors are implicated, but probably play different roles, is in cholinergic modulation of visual input.

Reagent

Supplied as a solution of 1 mg/mL in phosphate buffered saline, containing 0.1% sodium azide as a preservative.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunohistochemistry: a recommended working concentration of ~2 μg/mL is determined using brain tissue, neurons.

Note: In order to obtain the best results in various techniques and preparations, we recommend determining optimal working concentration by titration.

References

1. Fryer, A.D., et al., Effects of inflammatory cells on neuronal M_2 muscarinic receptor function in the lung., *Life Sci*., **64**, 449-455 (1999).
2. Retondaro, F.C., et al., Presence of antibodies against the third intracellular loop of the M_2 muscarinic receptor in the sera of chronic chagasic patients., *FASEB J*., **13**, 2015-2020 (1999).
3. Matsui, S., et al., Active immunization of combined beta1-adrenoceptor and M_2-muscarinic receptor peptides induces cardiac hypertrophy in rabbits., *J. Card. Fail*., **5**, 246-254 (1999).

This product is manufactured by MBL International Corporation

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