Anti-Muscarinic Acetylcholine Receptor M₃
produced in rabbit, affinity isolated antibody

Catalog Number M9568

Product Description
Anti-Muscarinic Acetylcholine Receptor M₃ is produced in rabbit using as immunogen a synthetic peptide conjugated to KLH. The synthetic peptide is from the third extracellular loop of rat m3 (Accession P08483). The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Muscarinic Acetylcholine Receptor M₃ specifically recognizes rat muscarinic acetylcholine receptor M₃ by immunohistochemistry with formalin-fixed, paraffin-embedded tissues. Other species reactivity has not been confirmed.

Muscarinic receptors are members of the G protein-coupled receptor family. Five subtypes (M₁-M₅) of muscarinic receptors have been identified. M₁, M₂ and M₃ activate phospholipases A₂, C or D, or tyrosine kinase and M₄ and M₅ attenuate adenylate cyclase or augment phospholipase A₂.

Muscarinic receptors are expressed throughout the CNS with M₂ receptors enriched in the cerebellum, pons/medulla and thalamus/hypothalamus whereas M₁ receptors are enriched in hippocampus, striatum and olfactory tubule. M₃ receptor is expressed in brain, eye, and heart. ESTs have been isolated from brain, colon, fetus, lung, and prostate libraries.

Muscarinic receptors have various presynaptic and postsynaptic effects that are important in both information processing and plastic changes in CNS function. The M₃ subtype triggers contraction through an interaction with G(q) proteins to stimulate phosphoinositide hydrolysis and mobilize Ca²⁺. In contrast, activation of M₂ receptors modulates contraction by preventing relaxation or by potentiating M₃ receptor-mediated contractions, which enhances heterologous desensitization.

Anticholinergic agents are the most widely used therapy for urge incontinence. M₃-receptors appear to be the most functionally important and mediate direct contraction of the detrusor muscle.

Reagent
Lyophilized from phosphate buffered saline, pH 7.4, containing 1% BSA, and 0.05% 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.

Preparation
Reconstitute with 50 µL of sterile deionized water. The resulting concentration will be 0.8 mg/mL.

Storage/ Stability
For long-term storage, store at -20 °C for up to 12 months after date of receipt. For extended storage of reconstituted material, in undiluted working aliquots, freeze at -20 °C for up to six months. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended.

Product Profile
Immunoblotting: 1:2,000 using ECL on rat brain lysate. Dilutions should be made using a carrier protein such as BSA (1-3%).

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

References


This product manufactured by MBL International.

SC,PHC 12/13-1