SANTA CRUZ BIOTECHNOLOGY, INC.

mAChR M1 (H-120): sc-9106

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

The muscarinic acetylcholine receptors (mAChR) mediate a variety of cellular responses, including inhibition of adenylate cyclase, breakdown of phosphoinositides and modulation of potassium channels. The mAChRs transduce signals by coupling to G proteins, which then modulate several downstream effector proteins and ion channels. Five mAChR subtypes have been identified, designated M1 to M5. The five receptor subtypes show distinct patterns of tissue distribution, as well as distinct pharmacological and functional properties. The amino acid sequence of each mAChR subtype reflects a structure that is characteristic of G protein-coupled receptors, consisting of seven highly conserved transmembrane segments and a large intracellular region unique to each subtype, which constitutes the effector-coupling domain.

CHROMOSOMAL LOCATION

Genetic locus: CHRM1 (human) mapping to 11q12.3; Chrm1 (mouse) mapping to 19 A.

SOURCE

mAChR M1 (H-120) is a rabbit polyclonal antibody raised against amino acids 231-350 of mAChR M1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

mAChR M1 (H-120) is recommended for detection of mAChR M1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

mAChR M1 (H-120) is also recommended for detection of mAChR M1 in additional species, including equine and bovine.

Suitable for use as control antibody for mAChR M1 siRNA (h): sc-35829, mAChR M1 siRNA (m): sc-35830, mAChR M1 shRNA Plasmid (h): sc-35829-SH, mAChR M1 shRNA Plasmid (m): sc-35830-SH, mAChR M1 shRNA (h) Lentiviral Particles: sc-35829-V and mAChR M1 shRNA (m) Lentiviral Particles: sc-35830-V.

Molecular Weight of mAChR M1: 52 kDa.

Positive Controls: rat heart extract: sc-2393.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

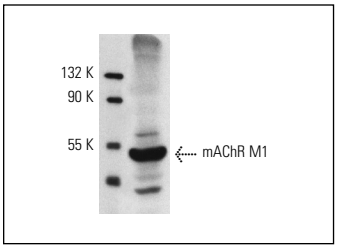
PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

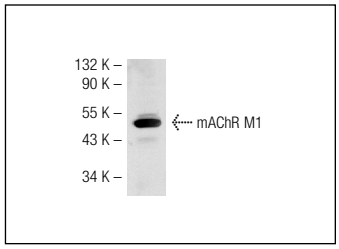
STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



mAChR M1 (H-120): sc-9106. Western blot analysis of mAChR M1 expression in rat heart extract.



mAChR M1 (H-120): sc-9106. Western blot analysis of mAChR M1 expression in rat heart tissue extract.

SELECT PRODUCT CITATIONS

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3. Profita, M., et al. 2009. Smoke, choline acetyltransferase, muscarinic receptors, and fibroblast proliferation in chronic obstructive pulmonary disease. J. Pharmacol. Exp. Ther. 329: 753-763.
4. Cardoso, C.C., et al. 2010. Effects of 17β-estradiol on expression of muscarinic acetylcholine receptor subtypes and estrogen receptor α in rat hippocampus. Eur. J. Pharmacol. 634: 192-200.
5. Mauro, V., et al. 2011. Regenerating I messenger RNA and protein expression in the failing human testis: a potential molecular prognostic marker of seminoma. Hum. Pathol. 42: 1841-1848.
6. Gilleron, J., et al. 2011. The large GTPase dynamin2: a new player in connexin 43 gap junction endocytosis, recycling and degradation. Int. J. Biochem. Cell Biol. 43: 1208-1217.
7. Creson, T.K., et al. 2011. Lithium treatment attenuates muscarinic M1 receptor dysfunction. Bipolar Disord. 13: 238-249.
8. Aykac, A., et al. 2012. The change in muscarinic receptor subtypes in different brain regions of rats treated with fluoxetine or propranolol in a model of post-traumatic stress disorder. Behav. Brain Res. 232: 124-129.