

mAChR M4 (H-175): sc-9109

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: CHRM4 (human) mapping to 11p11.2; Chrm4 (mouse) mapping to 2 E1.

SOURCE

mAChR M4 (H-175) is a rabbit polyclonal antibody raised against amino acids 220-394 of mAChR M4 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 M4 (H-175) is recommended for detection of mAChR M4 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 M4 (H-175) is also recommended for detection of mAChR M4 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for mAChR M4 siRNA (h): sc-42026, mAChR M4 siRNA (m): sc-42027, mAChR M4 shRNA Plasmid (h): sc-42026-SH, mAChR M4 shRNA Plasmid (m): sc-42027-SH, mAChR M4 shRNA (h) Lentiviral Particles: sc-42026-V and mAChR M4 shRNA (m) Lentiviral Particles: sc-42027-V.

Molecular Weight of mAChR M4: 74 kDa.

Positive Controls: CCD-1064Sk cell lysate: sc-2263.

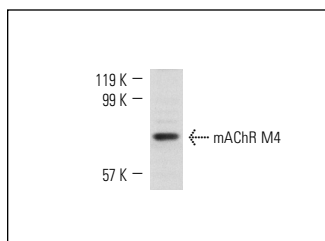
STORAGE

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

RESEARCH USE

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

DATA



mAChR M4 (H-175): sc-9109. Western blot analysis of mAChR M4 expression in CCD-1064Sk whole cell lysate.

SELECT PRODUCT CITATIONS

- Oyachi, N., et al. 2003. Development of ovine fetal ileal motility: role of muscarinic receptor subtypes. *Am. J. Obstet. Gynecol.* 189: 953-957.
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- Takeuchi, T., et al. 2005. Roles of M2 and M4 muscarinic receptors in regulating acetylcholine release from myenteric neurons of mouse ileum. *J. Neurophysiol.* 93: 2841-2848.
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- Myslivecek, J., et al. 2008. The detection of the non-M2 muscarinic receptor subtype in the rat heart atria and ventricles. *Naunyn Schmiedebergs Arch. Pharmacol.* 378: 103-116.
- Jositsch, G., et al. 2009. Suitability of muscarinic acetylcholine receptor antibodies for immunohistochemistry evaluated on tissue sections of receptor gene-deficient mice. *Naunyn Schmiedebergs Arch. Pharmacol.* 379: 389-395.
- Cabadak, H., et al. 2010. Regulation of M2, M3 and M4 muscarinic receptor expression in K562 chronic myelogenous leukemic cells by carbachol. *J. Recept. Signal Transduct. Res.* 31: 26-32.
- 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.
- Nandigama, R., et al. 2010. Muscarinic acetylcholine receptor subtypes expressed by mouse bladder afferent neurons. *Neuroscience* 168: 842-850.