SANTA CRUZ BIOTECHNOLOGY, INC.

mAChR M2 (C-18): sc-7472

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: CHRM2 (human) mapping to 7q33; Chrm2 (mouse) mapping to 6 B1.

SOURCE

mAChR M2 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of mAChR M2 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.

Blocking peptide available for competition studies, sc-7472 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

mAChR M2 (C-18) is recommended for detection of mAChR M2 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 M2 (C-18) is also recommended for detection of mAChR M2 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for mAChR M2 siRNA (h): sc-35831, mAChR M2 siRNA (m): sc-35832, mAChR M2 shRNA Plasmid (h): sc-35831-SH, mAChR M2 shRNA Plasmid (m): sc-35832-SH, mAChR M2 shRNA (h) Lentiviral Particles: sc-35831-V and mAChR M2 shRNA (m) Lentiviral Particles: sc-35832-V.

Molecular Weight of mAChR M2: 70-75 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat whole cell lysate: sc-2204 or MCF7 whole cell lysate: sc-2206.

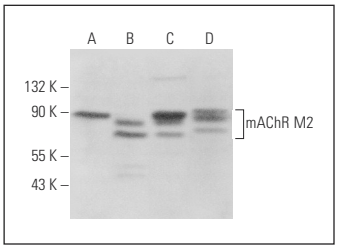
STORAGE

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 M2 (C-18): sc-7472. Western blot analysis of mAChR M2 expression in MCF7 (**A**), Jurkat (**B**), IMR-32 (**C**) and K-562 (**D**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chang, A.Y., et al. 2001. Engagement of inducible nitric oxide synthase at the rostral ventrolateral medulla during mevinphos intoxication in the rat. J. Biomed. Sci. 8: 475-483.
2. Espanol, A.J., et al. 2004. Different muscarinc receptors are involved in the proliferation of murine mammary adenocarcinoma cell lines. Int. J. Mol. Med. 13: 311-317.
3. Tayebati, S.K., et al. 2004. Age-related changes of muscarinic cholinergic receptor subtypes in the striatum of Fisher 344 rats. Exp. Gerontol. 39: 217-223.
4. Fayon, M., et al. 2005. Increased relaxation of immature airways to β_2-adrenoceptor agonists is related to attenuated expression of postjunctional smooth muscle muscarinic M2 receptors. J. Appl. Physiol. 98: 1526-1533.
5. Profita, M., et al. 2005. Muscarinic receptors, leukotriene B4 production and neutrophilic inflammation in COPD patients. Allergy 60: 1361-1369.
6. Fiszman, G.L., et al. 2007. Activation of muscarinic cholinergic receptors induces MCF-7 cells proliferation and angiogenesis by stimulating nitric oxide synthase activity. Cancer Biol. Ther. 6: 1106-1113.
7. Ricci, A., et al. 2008. Changes in muscarinic cholinergic receptor expression in human peripheral blood lymphocytes in allergic rhinitis patients. Pulm. Pharmacol. Ther. 21: 79-87.
8. Ortega-Legaspi, J.M., et al. 2010. Expression of muscarinic M1 and M2 receptors in the anterior cingulate cortex associated with neuropathic pain. Eur. J. Pain 14: 901-910.