

AChR α 6 (P-13): sc-27294

BACKGROUND

Members of the ligand-gated ion channel receptor family are characterized by their fast transmitting response to neurotransmitters. Two important members of this family are the nicotinic acetylcholine and glutamate receptors, both of which are composed of five homologous subunits forming a transmembrane aqueous pore. These transmembrane receptors change conformation in response to their cognate neurotransmitter. Nicotinic acetylcholine receptors (AChRs) are found at the postsynaptic membrane of the neuromuscular junction and bind acetylcholine molecules, allowing ions to move through the pore. AChR α 6, also designated cholinergic nicotinic receptor α polypeptide 6, is a neuronal acetylcholine receptor protein expressed in respiratory mucosa. AChR α 6 is also selectively expressed on dopaminergic terminals, where it complexes with AChR β 2 and AChR α 4.

REFERENCES

1. Barabino, B. et al. 2001. An α 4 β 4 nicotinic receptor subtype is present in chick retina: identification, characterization and pharmacological comparison with the transfected α 4 β 4 and α 6 β 4 subtypes. *Mol. Pharmacol.* 59: 1410-1417.
2. Zoli, M. et al. 2002. Identification of the nicotinic receptor subtypes expressed on dopaminergic terminals in the rat striatum. *J. Neurosci.* 22: 8785-8789.
3. Mugnaini, M. et al. 2002. Upregulation of [3H] methyllycaconitine binding sites following continuous infusion of nicotine, without changes of α 7 or α 6 subunit mRNA: an autoradiography and *in situ* hybridization study in rat brain. *Eur. J. Neurosci.* 16: 1633-1646.
4. Keiger, C.J. et al. 2003. Nicotinic cholinergic receptor expression in the human nasal mucosa. *Ann. Otol. Rhinol. Laryngol.* 112: 77-84.
5. Vailati, S. et al. 2003. Developmental expression of heteromeric nicotinic receptor subtypes in chick retina. *Mol. Pharmacol.* 63: 1329-1337.
6. Groot-Kormelink, P.J. et al. 2004. Incomplete incorporation of tandem subunits in recombinant neuronal nicotinic receptors. *J. Gen. Physiol.* 123: 697-708.

CHROMOSOMAL LOCATION

Genetic locus: Chma6 (mouse) mapping to 8 A2.

SOURCE

AChR α 6 (P-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of AChR α 6 of rat origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-27294 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

AChR α 6 (P-13) is recommended for detection of AChR α 6 of rat and, to a lesser extent, mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for AChR α 6 siRNA (m): sc-140806, AChR α 6 shRNA Plasmid (m): sc-140806-SH and AChR α 6 shRNA (m) Lentiviral Particles: sc-140806-V.

Molecular Weight of AChR α 6: 57 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

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