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. Glutamate receptors are found in the postsynaptic membrane of cells in the central nervous system. The activity that is generated at the synapse by the binding of acetylcholine is terminated by acetylcholinesterase, an enzyme that rapidly hydrolyzes acetylcholine. AChR α3, also known as LNCR2, PAOD2, NACHRA3 or CHRNA3, is a 505 amino acid multi-pass membrane protein that belongs to the ligand-gated ion channel receptor family and may play a role in neurotransmission.

CHROMOSOMAL LOCATION
Genetic locus: CHRNA3 (human) mapping to 15q25.1; Chrna3 (mouse) mapping to 9 B.

SOURCE
AChRα3 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of AChRα3 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-1771 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS
AChRα3 (C-18) is recommended for detection of the acetylcholine receptor α3 subunit 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). AChRα3 (C-18) is also recommended for detection of the acetylcholine receptor α3 subunit in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for AChRα3 siRNA (h): sc-37055, AChRα3 siRNA (m): sc-37056, AChRα3 shRNA Plasmid (h): sc-37055-SH, AChRα3 shRNA Plasmid (m): sc-37056-SH, AChRα3 shRNA (h) Lentiviral Particles: sc-37055-V and AChRα3 shRNA (m) Lentiviral Particles: sc-37056-V.

Molecular Weight of AChRα3: 55 kDa.

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

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

DATA

SELECT PRODUCT CITATIONS