

Latrophilin-3 (Y-17): sc-47098

BACKGROUND

The Latrophilin family of G protein-coupled receptors consists of three members, Latrophilin-1, -2 and -3, each of which displays distinct tissue distribution and function. Latrophilin-1, the most characterized member of this family, acts as a receptor for α -latrotoxin, a component of venom from the black widow spider. Binding of α -latrotoxin to Latrophilin-1 triggers synaptic vesicle exocytosis via both Ca^{2+} -dependent and -independent mechanisms, resulting in vesicle depletion. Latrophilin-1 is abundant in brain and present in endocrine cells. Latrophilin-3 is also brain-specific, whereas Latrophilin-2 expression is ubiquitous.

REFERENCES

1. Matsushita, H., et al. 1999. The latrophilin family: multiply spliced G protein-coupled receptors with differential tissue distribution. *FEBS Lett.* 443: 348-352.
2. Bittner, M.A., et al. 2000. α -latrotoxin and its receptors C1RL (Latrophilin) and neurexin 1 α mediate effects on secretion through multiple mechanisms. *Biochimie* 82: 447-452.
3. Van Renterghem, C., et al. 2000. α -latrotoxin forms calcium-permeable membrane pores via interactions with Latrophilin or neurexin. *Eur. J. Neurosci.* 12: 3953-3962.
4. Sudhof, T.C., et al. 2001. α -latrotoxin and its receptors: neurexins and C1RL/Latrophilins. *Annu. Rev. Neurosci.* 24: 933-962.
5. Nicholson, G.M., et al. 2002. Spiders of medical importance in the Asia-Pacific: atracotoxin, latrotoxin and related spider neurotoxins. *Clin. Exp. Pharmacol. Physiol.* 29: 785-794.
6. Ushkaryov, Y.A., et al. 2004. The multiple actions of black widow spider toxins and their selective use in neurosecretion studies. *Toxicon* 43: 527-542.

CHROMOSOMAL LOCATION

Genetic locus: LPHN3 (human) mapping to 4q13.1; Lphn3 (mouse) mapping to 5 D.

SOURCE

Latrophilin-3 (Y-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of Latrophilin-3 of human 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-47098 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Latrophilin-3 (Y-17) is recommended for detection of all Latrophilin-3 isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Latrophilin-3 (Y-17) is also recommended for detection of all Latrophilin-3 isoforms in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Latrophilin-3 siRNA (h): sc-60921, Latrophilin-3 siRNA (m): sc-60922, Latrophilin-3 shRNA Plasmid (h): sc-60921-SH, Latrophilin-3 shRNA Plasmid (m): sc-60922-SH, Latrophilin-3 shRNA (h) Lentiviral Particles: sc-60921-V and Latrophilin-3 shRNA (m) Lentiviral Particles: sc-60922-V.

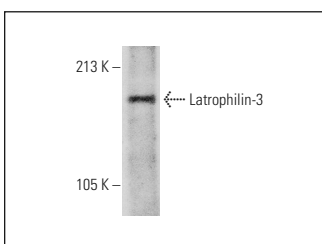
Molecular Weight of Latrophilin-3: 162 kDa.

Positive Controls: human colon extract: sc-363757.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Latrophilin-3 (Y-17): sc-47098. Western blot analysis of Latrophilin-3 expression in mouse colon tissue extract.

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.