SANTA CRUZ BIOTECHNOLOGY, INC.

Latrophilin-1 (P-19): sc-34486

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 CIRL (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 CIRL/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: LPHN1 (human) mapping to 19p13.12; Lphn1 (mouse) mapping to 8 C3.

SOURCE

Latrophilin-1 (P-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of Latrophilin-1 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-34486 P, (100 µg 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-1 (P-19) is recommended for detection of Latrophilin-1 of mouse, rat and human 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).

Latrophilin-1 (P-19) is also recommended for detection of Latrophilin-1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for Latrophilin-1 siRNA (h): sc-45408, Latrophilin-1 siRNA (m): sc-45409, Latrophilin-1 shRNA Plasmid (h): sc-45408-SH, Latrophilin-1 shRNA Plasmid (m): sc-45409-SH, Latrophilin-1 shRNA (h) Lentiviral Particles: sc-45408-V and Latrophilin-1 shRNA (m) Lentiviral Particles: sc-45409-V.

Molecular Weight of Latrophilin-1: 130 kDa.

Positive Controls: Rat brain extract: sc-2392.

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.

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.