

# Latrophilin-2 (A-14): sc-47091

## 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  $\alpha$ -latrotoxin, a component of venom from the black widow spider. Binding of  $\alpha$ -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.  $\alpha$ -latrotoxin and its receptors C1RL (Latrophilin) and neurexin 1  $\alpha$  mediate effects on secretion through multiple mechanisms. *Biochimie* 82: 447-452.
3. Van Renterghem, C., et al. 2000.  $\alpha$ -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.  $\alpha$ -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: LPHN2 (human) mapping to 1p31.1; Lphn2 (mouse) mapping to 3 H3.

## SOURCE

Latrophilin-2 (A-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of Latrophilin-2 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-47091 P, (100  $\mu$ 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-2 (A-14) is recommended for detection of all Latrophilin-2 isoforms of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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-2 (A-14) is also recommended for detection of all Latrophilin-2 isoforms in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Latrophilin-2 siRNA (h): sc-60919, Latrophilin-2 siRNA (m): sc-60920, Latrophilin-2 shRNA Plasmid (h): sc-60919-SH, Latrophilin-2 shRNA Plasmid (m): sc-60920-SH, Latrophilin-2 shRNA (h) Lentiviral Particles: sc-60919-V and Latrophilin-2 shRNA (m) Lentiviral Particles: sc-60920-V.

Molecular Weight of Latrophilin-2: 163 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) 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.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **Latrophilin-2 (E-3): sc-514197**, our highly recommended monoclonal alternative to Latrophilin-2 (A-14).