

# Latrophilin-3 (P-17): sc-47095

## 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  $\text{Ca}^{2+}$ -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: LPHN3 (human) mapping to 4q13.1; Lphn3 (mouse) mapping to 5 D.

## SOURCE

Latrophilin-3 (P-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  $\mu\text{g}$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47095 P, (100  $\mu\text{g}$  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 (P-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  $\mu\text{g}$  per 100-500  $\mu\text{g}$  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).

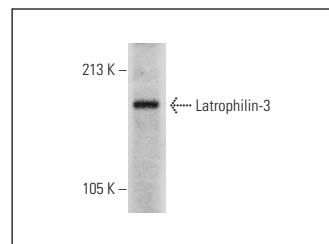
Latrophilin-3 (P-17) is also recommended for detection of all Latrophilin-3 isoforms in additional species, including equine, canine, bovine, porcine and avian.

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: mouse colon extract: sc-364238.

## DATA



Latrophilin-3 (P-17): sc-47095. 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

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Try **Latrophilin-3 (B-6): sc-393576**, our highly recommended monoclonal alternative to Latrophilin-3 (P-17).