

# Latrophilin-1 (A-4): sc-514562

## 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.

## CHROMOSOMAL LOCATION

Genetic locus: ADGRL1 (human) mapping to 19p13.12; Adgrl1 (mouse) mapping to 8 C3.

## SOURCE

Latrophilin-1 (A-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 335-357 within an N-terminal extracellular domain of Latrophilin-1 of human origin.

## PRODUCT

Each vial contains 200  $\mu\text{g}$  IgG $\kappa$  light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Latrophilin-1 (A-4) is available conjugated to agarose (sc-514562 AC), 500  $\mu\text{g}$ /0.25 ml agarose in 1 ml, for IP; to HRP (sc-514562 HRP), 200  $\mu\text{g}$ /ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514562 PE), fluorescein (sc-514562 FITC), Alexa Fluor® 488 (sc-514562 AF488), Alexa Fluor® 546 (sc-514562 AF546), Alexa Fluor® 594 (sc-514562 AF594) or Alexa Fluor® 647 (sc-514562 AF647), 200  $\mu\text{g}$ /ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514562 AF680) or Alexa Fluor® 790 (sc-514562 AF790), 200  $\mu\text{g}$ /ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514562 P, (100  $\mu\text{g}$  peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

Latrophilin-1 (A-4) is recommended for detection of Latrophilin-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

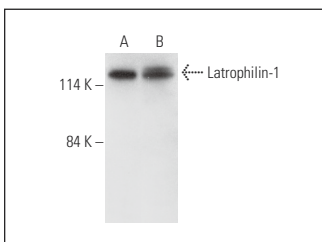
Molecular Weight of Latrophilin-1: 130 kDa.

Positive Controls: WI-38 whole cell lysate: sc-364260, TK-1 whole cell lysate: sc-364798 or SH-SY5Y cell lysate: sc-3812.

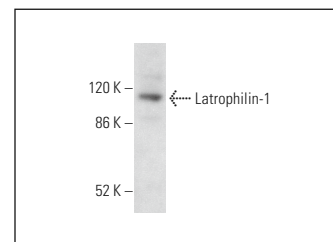
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Latrophilin-1 (A-4): sc-514562. Western blot analysis of Latrophilin-1 expression in WI-38 (A) and SH-SY5Y (B) whole cell lysates.



Latrophilin-1 (A-4): sc-514562. Western blot analysis of Latrophilin-1 expression in TK-1 whole cell lysate.

## STORAGE

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

## 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) for detailed protocols and support products.