SANTA CRUZ BIOTECHNOLOGY, INC.

Latrophilin-2 (E-3): sc-514197

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. 24933-24962.
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.

CHROMOSOMAL LOCATION

Genetic locus: LPHN2 (human) mapping to 1p31.1.

SOURCE

Latrophilin-2 (E-3) is a mouse monoclonal antibody raised against amino acids 326-370 mapping within an internal region of Latrophilin-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Latrophilin-2 (E-3) is available conjugated to agarose (sc-514197 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514197 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514197 PE), fluorescein (sc-514197 FITC), Alexa Fluor® 488 (sc-514197 AF488), Alexa Fluor® 546 (sc-514197 AF546), Alexa Fluor® 594 (sc-514197 AF594) or Alexa Fluor® 647 (sc-514197 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514197 AF680) or Alexa Fluor® 790 (sc-514197 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

Latrophilin-2 (E-3) is recommended for detection of Latrophilin-2 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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-2 siRNA (h): sc-60919, Latrophilin-2 shRNA Plasmid (h): sc-60919-SH and Latrophilin-2 shRNA (h) Lentiviral Particles: sc-60919-V.

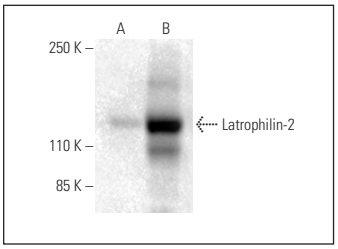
Molecular Weight of Latrophilin-2: 163 kDa.

Positive Controls: human Latrophilin-2 transfected HEK293T whole cell lysate or HISM cell lysate: sc-2229.

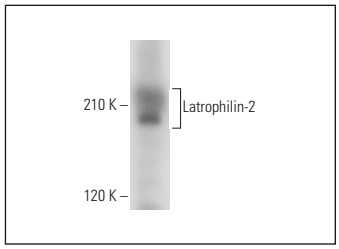
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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-2 (E-3): sc-514197. Western blot analysis of Latrophilin-2 expression in non-transfected (**A**) and human Latrophilin-2 transfected (**B**) HEK293T whole cell lysates. Detection reagent used: m-IgG BP-HRP: sc-516102.



Latrophilin-2 (E-3): sc-514197. Western blot analysis of Latrophilin-2 expression in HISM whole cell lysate.

SELECT PRODUCT CITATIONS

1. Yin, G.N., et al. 2022. Latrophilin-2 is a novel receptor of LRG1 that rescues vascular and neurological abnormalities and restores diabetic erectile function. Exp. Mol. Med. 54: 626-638.

STORAGE

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