

Lynx1 (T-15): sc-23060

BACKGROUND

Proper neuronal function relies on the regulation of neurotransmitter receptors, such as the nicotinic and muscarinic acetylcholine receptors. Neuronal nicotinic acetylcholine receptors define a superfamily of ligand-gated ion channels that contribute to normal synaptic transmission in the central and peripheral nervous systems. Snake venom α -neurotoxins and mammalian Ly-6 family members can target different muscle-type and neuronal nicotinic acetylcholine receptors. Ly6/neurotoxin 1, known as Lynx1 or Ly-6 neurotoxin-like protein-1, is a secreted modulator of nicotinic acetylcholine receptors that is similar to snake venom neurotoxins and the lymphocyte antigen-6 gene (LY-6) family of the immune system. Lynx1 is expressed in large projection neurons in the hippocampus, cortex, and cerebellum, and localizes to the cerebellar soma and proximal dendrites.

REFERENCES

- Hall, Z.W. 1999. α neurotoxins and their relatives: foes and friends? *Neuron* 23: 4-5.
- Miwa, J.M., et al. 1999. Lynx1, an endogenous toxin-like modulator of nicotinic acetylcholine receptors in the mammalian CNS. *Neuron* 23: 105-114.
- Tsetlin, V. 1999. Snake venom α -neurotoxins and other "three-finger" proteins. *Eur. J. Biochem.* 264: 281-286.
- Dwoskin, L.P. and Crooks, P.A. 2001. Competitive neuronal nicotinic receptor antagonists: a new direction for drug discovery. *J. Pharmacol. Exp. Ther.* 298: 395-402.
- Dani, J.A. 2001. Overview of nicotinic receptors and their roles in the central nervous system. *Biol. Psychiatry* 49: 166-174.

CHROMOSOMAL LOCATION

Genetic locus: LYNX1 (human) mapping to 8q24.3; Lynx1 (mouse) mapping to 15 D3.

SOURCE

Lynx1 (T-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Lynx1 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-23060 P, (100 μ 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.

RESEARCH USE

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

APPLICATIONS

Lynx1 (T-15) is recommended for detection of Lynx1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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 Lynx1 siRNA (h): sc-106911, Lynx1 siRNA (m): sc-149173, Lynx1 shRNA Plasmid (h): sc-106911-SH, Lynx1 shRNA Plasmid (m): sc-149173-SH, Lynx1 shRNA (h) Lentiviral Particles: sc-106911-V and Lynx1 shRNA (m) Lentiviral Particles: sc-149173-V.

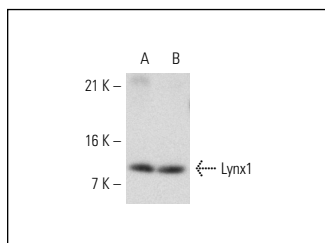
Molecular Weight of Lynx1: 11 kDa.

Positive Controls: mouse brain extract: sc-2253 or 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) 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.

DATA



Lynx1 (T-15): sc-23060. Western blot analysis of Lynx1 expression in mouse brain (A) and rat brain (B) tissue extracts.

SELECT PRODUCT CITATIONS

- Maneu, V., et al. 2010. Evidence of α 7 nicotinic acetylcholine receptor expression in retinal pigment epithelial cells. *Vis. Neurosci.* 27: 139-147.
- Thomsen, M.S., et al. 2013. Expression of the Ly-6 family proteins Lynx1 and Ly6H in the rat brain is compartmentalized, cell-type specific, and developmentally regulated. *Brain Struct. Funct.* E-published.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.