SANTA CRUZ BIOTECHNOLOGY, INC.

Neurokinin B (L-16): sc-14109

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The Power to Question

BACKGROUND

The tachykinin family consists of amidated neuropeptides that share a carboxy-terminal sequence (Phe-X-Gly-Leu-Met-NH_2). Tachykinin peptides have many plieotropic functions including: neurotransmission, immune/hematopoietic modulation, angiogenesis and mitogenesis. Neurokinin B (NKB), also known as TAC3 (tachykinin 3), NKNB or ZNEUROK1, is a 121 amino acid secreted protein that belongs to the tachykinin family and exists as three alternatively spliced isoforms. Expressed primarily in the central and peripheral nervous system, Neurokinin B is also found in the placental outer syncytiotrophoblast and is thought to have a role in pregnancy-induced pre-eclampsia and hypertension. The gene encoding Neurokinin B maps to human chromosome 12, which comprises approximately 4.5% of the human genome. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p.

REFERENCES

1. Lai, J.P., et al. 1998. Identification of a δ isoform of preprotachykinin mRNA in human mononuclear phagocytes and lymphocytes. J. Neuroimmunol. 9: 121-128.
2. Page, N.M., et al. 2000. Excessive placental secretion of neurokinin B during the third trimester causes pre-eclampsia. Nature 405: 797-800.
3. Singh, D., et al. 2000. Increased expression of preprotachykinin-I and neurokinin receptors in human breast cancer cells: implications for bone marrow metastasis. Proc. Natl. Acad. Sci. USA 97: 388-393.

CHROMOSOMAL LOCATION

Genetic locus: Tac2 (mouse) mapping to 10 D3.

SOURCE

Neurokinin B (L-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Neurokinin B of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-14109 P, (100 µg 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.

PROTOCOLS

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

APPLICATIONS

Neurokinin B (L-16) is recommended for detection of Neurokinin B of mouse and rat origin by Western Blotting (starting dilution 1:200, 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).

Neurokinin B (L-16) is also recommended for detection of neurokinin B in additional species, including bovine.

Suitable for use as control antibody for Neurokinin B siRNA (m): sc-42291, Neurokinin B shRNA Plasmid (m): sc-42291-SH and Neurokinin B shRNA (m) Lentiviral Particles: sc-42291-V.

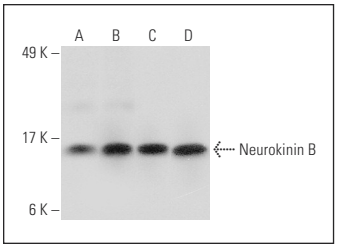
Molecular Weight of Neurokinin B isoforms: 13/15/11 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, mouse cerebellum extract: sc-2403 or BC_3H1 cell lysate: sc-2299.

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



Neurokinin B (L-16): sc-14109. Western blot analysis of Neurokinin B expression in mouse brain (**A**) and mouse cerebellum (**B**) tissue extracts and BC_3H1 (**C**) and NIH/3T3 (**D**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Pinto, F.M., et al. 2010. Autocrine regulation of human sperm motility by tachykinins. Reprod. Biol. Endocrinol. 8: 104.
2. Cejudo Roman, A., et al. 2012. Analysis of the expression of neurokinin B, kisspeptin, and their cognate receptors NK3R and KISS1R in the human female genital tract. Fertil. Steril. 97: 1213-1219.