SANTA CRUZ BIOTECHNOLOGY, INC.

Neurokinin B (M-20): sc-14110

BACKGROUND

The tachykinin family consists of amidated neuropeptides that share a carboxy-terminal sequence (Phe-X-Gly-Leu-Met-NH_2). Preprotachykinin I, also designated protachykinin 1 precursor (PPT), is a common precursor of tachykinins. Preprotachykinin I alternately splices to form various isoforms. These isoforms include: substance P; neurokinin A (NKA, substance K, neuromedin L); neurokinin B; neuropeptide K (NPK); neuropeptide gamma; and C-terminal flanking peptide. Substance P is expressesed primarily in the small diameter primary sensory fibers of the peripheral nervous system, and in the superficial dorsal horn of the spinal cord, the substantia nigra, and the medial amygdaloid nucleus of the central nervous system. Tachykinin peptides have many plieotropic functions including: neurotransmission, immune/hematopoietic modulation, angiogenesis, and mitogenesis. Preprotachykinin I has been implicated in breast cancer and bone marrow metastasis. Substance P plays a role in depression.

REFERENCES

1. McGregor, G.P. and Conlon, J.M. 1990. Characterization of the C-terminal flanking peptide of human beta-preprotachykinin. Peptides 11: 907-910.
2. Lai, J.P., et al. 1998. Identification of a delta isoform of preprotachykinin mRNA in human mononuclear phagocytes and lymphocytes. J .Neuroimmunol 9: 121-128.
3. Kramer, M.S., et al. 1998. Distinct mechanism for antidepressant activity by blokade of central Substance P receptors. Science 281: 1640-1645.
4. Page, N.M., et al. 2000. Excessive placental secretion of neurokinin B during the third trimester causes pre-eclampsia. Nature. 405: 797-800.
5. Ribeiro-da-Silva, A. and Hokfelt, T. 2000. Neuroanatomical localization of Substance P in the CNS and sensory neurons. Neuropeptides 34: 256-271.
6. 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. 97: 388-393.
7. Qian, J., et al. 2001. Cloning of human preprotachykinin-I oriniter and the role of cyclic adenosine 5'-monophosphate response elements in its expression by IL-1 and stem cell factor. J. Immunology 166: 2553-2561.

SOURCE

Neurokinin B (M-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus 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-14110 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.

APPLICATIONS

Neurokinin B (M-20) 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), 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 Neurokinin B siRNA (m): sc-42291, Neurokinin B shRNA Plasmid (m): sc-42291-SH and Neurokinin B shRNA (m) Lentiviral Particles: sc-42291-V.

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) 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.

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.