

Cat# SP-101328-5

Description: [Cys3, 6, Tyr8, Pro10]-Substance P [Cys3, 6, Tyr8, Pro10]-Substance P

Sequence: Arg-Pro-Cys-Pro-Gln-Cys-Phe-Tyr-Gly-Pro-Met-NH₂; (Disulfide bridge: Cys3-Cys6); MW: 1295.6

Size: 5 mg

Purity: >95%

Store: Desiccated at -20oC.

Tachykinins are active peptides which excite neurons, evoke behavioral responses, are potent vasodilators and secretagogues, and contract (directly or indirectly) many smooth muscles. They are family of peptides that have similar biologic activities and share a common C-terminal sequence, phe-X-gly-leu-met-NH₂, but have distinct N-terminal sequences that convey receptor specificities. Members of this family include substance P, neurokinin A (also known as substance K), and neurokinin B.

The endogenous receptor for substance P is neurokinin 1 receptor (NK1-receptor, NK1R). Substance P coexists with the excitatory neurotransmitter glutamate in primary afferents that respond to painful stimulation. Substance P has been associated with the regulation of mood disorders, anxiety, stress, reinforcement, neurogenesis, respiratory rhythm, neurotoxicity, nausea/emesis, pain and nociception. Substance P and other sensory neuropeptides can be released from the peripheral terminals of sensory nerve fibers in the skin, muscle and joints. It is proposed that this release is involved in neurogenic inflammation, which is a local inflammatory response to certain types of infection or injury. The regulatory function of SP also involves the regulation of its high-affinity receptor, NK-1. Substance P receptor antagonists may have important therapeutic applications in the treatment of a variety of stress-related illnesses, in addition to their potential as analgesics.

References

Cao, Y. Q., (1998). Nature 392: 390-393. Greco, S. J., (2007). Proc. Nat. Acad. Sci. 104: 15484-15489. Hong, H. S.,

(2009). Nature Med. 15: 425-435. Krause, J. E., (1987). Proc. Nat. Acad. Sci. 84: 881-885. Liu, H., (1999). Proc. Nat. Acad. Sci. 96: 12096-12101. Park, T. J., (2008). PLoS Biol. 6: e13, 2008

Related items

SP-101328-5 [Cys3, 6, Tyr8, Pro10]-Substance P [Arg-Pro-Cys-Pro-Gln-Cys-Phe-Tyr-Gly-Pro-Met-NH₂; (-Substance IB
SP-102050-5 -Substance IB
SP-55176-5 Substance P (1-4);
SP-55240-5 Substance P (7-11
SP-55247-5 Substance P (1-7);
SP-55327-5 Substance P (1-9);
SP-55371-5 Substance P, Free Acid
SP-55379-5 Substance P;
SP-55389-5 [Pro9] Substance P
SP-55395-5 [Sar9] Substance P;
SP-55397-5 [Nle11] Substance P
SP-81738-5 [D-Arg1,D-Pro2,D-Trp7,9,Leu11]-Substance P
SP-84204-5 [D-Arg1,D-Trp7,9,Leu11]-Substance P
SP-84488-5 [D-Arg1,D-Phe5,D-Trp7,9,Leu11]-Substance P
SP-86738-5 Scyliorhinin I, Scy I; Shark Substance P
SP-86739-5 Biotin-Substance P
SP-87359-5 Substance P (2-11)/Deca-Substance P
SP-87364-5 Substance P (4-11)/
SP-87365-1 Substance P (5-11)/Hepta-Substance P
SP-87366-5 Substance P (6-11)/Hexa-Substance P
SP-87367-5 Substance P (9-11)
SP-87368-5 Substance P reversed sequence
SP-87369-1 Substance P-Gly-Lys-Arg
SP-87370-5 [Arg3] Substance P
SP-87371-5 [Asp5,6,Me-Phe8] Substance P [Gly11] Substance P
SP-87372-5 [His11] Substance P
SP-87373-5 [Tyr8,Nle11] Substance P]
SP-87377-5 Neurokinin A; Substance K; Neuromedin L; NKA
SP-88021-5
SP-89800-5 [D-Arg1,D-Phe5,D-Trp7,11]-Substance P
SP-89801-5 [D-Arg1,D-Pro2,D-Phe7,D-His9]-Substance P
SP-89802-5 [D-Arg1,D-Trp5,7,9,Leu11]-Substance P

All peptides are for in vitro research use only.

Please consult "Frequently asked questions" section at our website for Guidance on storage and solubility of the peptides.

http://www.4adi.com/commerce/info/showpage.jsp?page_id=1088&category_id=2427

SP-101328-5

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