Product Data Sheet

Cat# **SP-101128-1**

Description: Biotin-[Tyr0]-Orexin B, mouse, rat (AA: Biotin-Tyr-Arg-Pro-Gly-Pro-Pro-Gly-Leu-Gln-Gly-Arg-Leu-Gln-Arg-Leu-Leu-Gln-Ala-Asn-Gly-Asn-His-Ala-Ala-Gly-Ile-Leu-Thr-Met-NH2) (MW: 3325.9)

Size: 1 mg

Purity: >95%

Store: Desiccated at -20oC.

Orexins/hypocretin are neuropeptides released by the hypothalamus. The Hypothalamus acts as a regulatory center for autonomic and endocrine homeostasis.

Orexin-A and -B (hypocretin-1 and -2) are the 2 isoforms with 50% sequence identity, produced by cleavage of a single precursor protein. Orexin-A is 33 amino acid peptide and has two intrachain disulfide bonds; orexin-B is a linear 28 amino acid peptide. The peptides bind to the two G-protein coupled orexin receptors, OX1 and OX2, with orexin-A binding to both OX1 and OX2 while orexin-B binds mainly to OX2.

Their functions include regulation of food intake and sleep-wakefulness, coordinating the complex behavioral and physiologic responses of these complementary homeostatic functions, homeostatic regulation of energy metabolism, autonomic function, hormonal balance and the regulation of body fluids. Lack of orexin in the brain causes narcolepsy.

References

Taheri S, (2001). Clin Endocrinol; 54:421–429. Kastin AJ., (1999). J Pharmacol Exp Ther; 289:219–222.
Sakurai T., (1998). Cell; 92:573–585. Davis JF., (2011). Springer. pp. 361–2. de Lecea L., (1998). *Proc. Natl. Acad. Sci. U.S.A.* **95** (1): 322–7.

Related items

SP-54421-1	Orexin A, Bovine, Human, mouse, Rat;
SP-54422-05	Orexin-B, Human
SP-100439-1	[Ala11, D-Leu15]-Orexin B (human]
SP-101128-1	Biotin-[Tyr0]-Orexin B, mouse, rat
SP-55233-05	Orexin B, Canine;
SP-55234-05	Orexin B, Rat, Mouse

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