

PRODUCT INFORMATION



[Ala¹¹,D-Leu¹⁵]-Orexin B (acetate)

Item No. 36728

Synonym: [Ala¹¹,D-Leu¹⁵]-OXB

Peptide Sequence: RSGPPGLQGRLXQASGNHAAGILTM-NH₂ (X = D-Leucine)

MF: C₁₂₀H₂₀₆N₄₄O₃₅S • XC₂H₄O₂

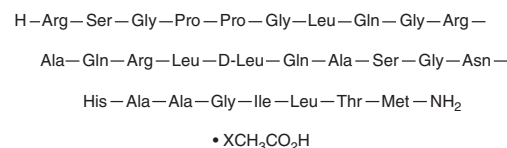
FW: 2,857.3

Purity: ≥98%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

[Ala¹¹,D-Leu¹⁵]-Orexin B (acetate) is supplied as a crystalline solid. A stock solution may be made by dissolving the [Ala¹¹,D-Leu¹⁵]-orexin B (acetate) in water. We do not recommend storing the aqueous solution for more than one day.

Description

[Ala¹¹,D-Leu¹⁵]-Orexin B is a synthetic peptide agonist of the orexin 2 (OX₂) receptor.¹ It selectively induces calcium mobilization in CHO-K1 cells expressing OX₂ over CHO-K1 cells expressing OX₁ (EC₅₀s = 0.13 and 52 nM, respectively, for the human receptors). [Ala¹¹,D-Leu¹⁵]-Orexin B inhibits forskolin-, PACAP (1-27)-, or VIP-induced cAMP formation in primary rat neuronal cells (IC₅₀s = 42, 32.3, and 22.9 nM, respectively).² It increases mean arterial pressure (MAP), heart rate, and phrenic nerve activity in rats when intracranially administered at a dose of 0.75 pmol/animal.³

References

1. Asahi, S., Egashire, S.-I., Matsuda, M., *et al.* Development of an orexin-2 receptor selective agonist, [Ala¹¹, D-Leu¹⁵]orexin-B. *Bioorg. Med. Chem. Lett.* 13(1), 111-113 (2003).
2. Urbanska, A., Sokolowska, P., Woldan-Tambor, A., *et al.* Orexins/hypocretins acting at G_i protein-coupled OX₂ receptors inhibit cyclic AMP synthesis in the primary neuronal cultures. *J. Mol. Neurosci.* 46(1), 10-17 (2012).
3. Shahid, I.Z., Rahman, A.A., and Pilowsky, P.M. Orexin A in rat rostral ventrolateral medulla is pressor, sympatho-excitatory, increases barosensitivity and attenuates the somato-sympathetic reflex. *Brit. J. Pharmacol.* 165(7), 2292-2303 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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