

PRODUCT INFORMATION



Hemokinin 1-d₁₀ (human) (trifluoroacetate salt)

Item No. 44813

Formal Name: (2S)-2-((2S,5S,8S,14S,15R)-14-amino-8-(4-aminobutyl)-15-hydroxy-2-(hydroxymethyl)-5-methyl-4,7,10,13-tetraoxo-3,6,9,12-tetraazahexadecanamido)-N¹-((5S,14S,17S)-14-benzyl-5-carbamoyl-8-(2-(methyl-d₃)propyl-1,1,2,3,3,3-d₆)-7,10,13,16-tetraoxo-18-phenyl-2-thia-6,9,12,15-tetraaaoctadecan-17-yl-8-d) pentanediamide, trifluoroacetate salt

Synonyms: HK-1-d₁₀, Tachykinin-4 (57-67)-d₁₀

Peptide Sequence: TGKASQFFG[L-d₁₀]M-NH₂

MF: C₅₄H₇₄D₁₀N₁₄O₁₄S • XCF₃COOH

FW: 1,195.5

Chemical Purity: ≥95% (Hemokinin 1)

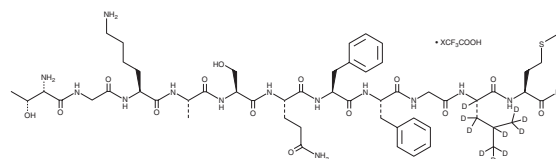
Deuterium

Incorporation: ≥99% deuterated forms (d₁-d₁₀); ≤1% d₀

Supplied as: A 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

Hemokinin 1-d₁₀ is intended for use as an internal standard for the quantification of hemokinin 1 (Item No. 35458) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Description

Hemokinin 1 is a tachykinin peptide neurokinin-1 (NK₁) receptor agonist.¹⁻⁵ It induces migration of A375 and B16/F10 melanoma cells when used at a concentration of 1 μM, an effect that can be reversed by the NK₁ receptor antagonist L-732,138 (Item No. 30894).¹ Hemokinin 1 (0.001-0.1 μM) promotes the proliferation, migration, and tube formation of human umbilical vein endothelial cells (HUVECs).² It induces the production of prostaglandin E₂ (PGE₂; Item No. 14010) in human colon mucosal and muscle explants.³ Intracerebroventricular administration of hemokinin 1 increases the latency to withdrawal in the tail-flick test in mice in a dose-dependent manner.⁴ It decreases mean arterial pressure (MAP) and heart rate in anesthetized rats when administered at doses ranging from 1 to 30 nmol/kg.⁵

References

1. Zhang, Y., Li, X., Li, J., et al. *Peptides* **83**, 8-15 (2016).
2. Song, H., Yin, W., Zeng, Q., et al. *Int. J. Biochem. Cell Biol.* **44(9)**, 1410-1421 (2012).
3. Dai, L., Perera, D.S., King, D.W., et al. *J. Pharmacol. Exp. Ther.* **340(1)**, 27-36 (2012).
4. Fu, C.Y., Zhao, Y.L., Dong, L., et al. *Brain Behav. Immun.* **22(6)**, 850-860 (2008).
5. Kong, Z.-Q., Fu, C.-Y., Chen, Q., et al. *Eur. J. Pharmacol.* **590(1-3)**, 310-316 (2008).

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.

WARRANTY AND LIMITATION OF REMEDY

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