

PRODUCT INFORMATION



CGRP (8-37) (mouse, rat) (trifluoroacetate salt)

Item No. 35645

Formal Name: (S)-4-(((S)-2-(2-((S)-2-((S)-2-((2S,3R)-2-((S)-1-(L-valyl-L-threonyl-L-histidyl-L-arginyl-L-leucyl-L-alanyl-glycyl-L-leucyl-L-leucyl-L-seryl-L-arginyl-L-seryl-glycyl-glycyl-L-valyl-L-valyl-L-lysyl-L-aspartyl-L-asparagyl-L-phenylalanyl-L-valyl)pyrrolidine-2-carboxamido)-3-hydroxybutanamido)-4-amino-4-oxobutanamido)-3-methylbutanamido)acetamido)-3-hydroxypropanamido)-5-(((S)-1-(((S)-1-amino-1-oxo-3-phenylpropan-2-yl)amino)-1-oxopropan-2-yl)amino)-5-oxopentanoic acid, trifluoroacetate salt

Synonyms: Calcitonin Gene-Related Peptide (8-37), CGRP8-37, VTHRLAGLLSRSGGVVKDNFVPTNVGSEAF-NH₂

MF: C₁₃₈H₂₂₄N₄₂O₄₁ • XCF₃COOH

FW: 3,127.5

Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

H-Val-Thr-His-Arg-Leu-Ala-Gly-Leu-Leu-Ser-Arg-Ser-Gly-Gly-Val-Val-Lys-Asp-Asn-Phe-Val-Pro-Thr-Asn-Val-Gly-Ser-Glu-Ala-Phe-NH₂ • XCF₃COOH

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

Laboratory Procedures

CGRP (8-37) (mouse, rat) (trifluoroacetate salt) is supplied as a solid. Aqueous solutions of CGRP (8-37) (mouse, rat) (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of CGRP (8-37) (mouse, rat) (trifluoroacetate salt) in PBS (pH 7.2) is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Calcitonin gene-related protein (CGRP) (8-37) is a CGRP receptor antagonist.¹ It corresponds to amino acids 8-37 of rodent α -CGRP (Item No. 24728), a neuropeptide. CGRP (8-37) selectively binds to heterotrimeric complexes of calcitonin receptor-like receptor (CRLR) and receptor activity-modifying protein 1 (RAMP1) or RAMP3 (IC₅₀s = 1 and 6.2 nM, respectively) over a complex of CRLR and RAMP2 (IC₅₀ = 219 nM). It prevents CGRP-induced increases in heart rate and decreases in blood pressure in transgenic mice expressing rat CRLR in smooth muscle-containing tissues and sympathetic ganglia when administered at a dose of 2 μ mol/kg.² CGRP (8-37) also inhibits p-phenylquinone-induced writhing (ED₅₀ = 6 μ g/animal) and decreases body temperature in a dose-dependent manner in mice.³

References

1. Husmann, K., Born, W., Fischer, J.A., *et al.* Three receptor-activity-modifying proteins define calcitonin gene-related peptide or adrenomedullin selectivity of the mouse calcitonin-like receptor in COS-7 cells. *Biochem. Pharmacol.* **66(11)**, 2107-2115 (2003).
2. Kunz, T.H., Scott, M., Iltner, L.M., *et al.* Calcitonin gene-related peptide-evoked sustained tachycardia in calcitonin receptor-like receptor transgenic mice is mediated by sympathetic activity. *Am. J. Physiol. Heart Circ. Physiol.* **293(4)**, H2155-H2160 (2007).
3. Saxen, M.A., Smith, F.L., Dunlow, L.D., *et al.* The hypothermic and antinociceptive effects of intrathecal injection of CGRP (8-37) in mice. *Life Sci.* **55(21)**, 1665-1674 (1994).

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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