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Produktinformation

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- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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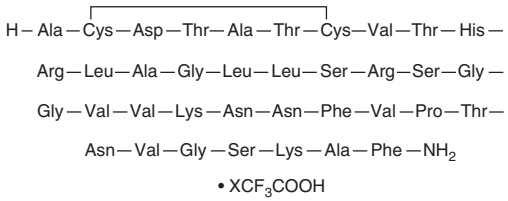
PRODUCT INFORMATION

α-CGRP (human) (trifluoroacetate salt)

Item No. 24405

Synonyms: α-Calcitonin Gene-Related Peptide (human), Calcitonin Gene-Related Peptide-1 (human), CGRP-1 (human)
MF: $C_{163}H_{267}N_{51}O_{49}S_2 \bullet XCF_3COOH$
FW: 3,789.3
Purity: ≥95%
Supplied as: A lyophilized powder
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

α-Calcitonin gene-related peptide (α-CGRP) (human) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the α-CGRP (human) (trifluoroacetate salt) in water. The solubility of α-CGRP (human) (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

α-CGRP is a neuropeptide with diverse biological activities.[1] It belongs to the calcitonin family of peptides, which also includes amylin (Item No. 24274), calcitonin (Item Nos. 24409 | 24410), and adrenomedullin.[2] α-CGRP binds selectively to a heteromeric complex of calcitonin receptor-like receptor (CRLR) and receptor activity-modifying protein 1 (RAMP1; IC_{50} = 0.1 nM) over a complex of CLCR and RAMP2 (IC_{50} = 1,300 nM).[3] It also binds selectively to complexes of human calcitonin receptor 2 (CTR2) and RAMP1 (IC_{50} = 43.7 nM) compared to CTR2 and RAMP2 complexes (IC_{50} = 141.3 nM) in amylin radioligand displacement assays.[4] α-CGRP induces cAMP-activated currents in *Xenopus* oocytes with endogenous Cgrp receptors that overexpress RAMP1 (EC_{50} = 9 nM).[3] It also induces cAMP accumulation in COS-7 cells transfected with both CTR2 and RAMP1 (EC_{50} = 8.32 nM).[4]

References

1. Russell, F.A., King, R., Smillie, S.-J., *et al.* Calcitonin gene-related peptide: Physiology and pathophysiology. *Physiol. Rev.* **94(4)**, 1099-1142 (2014).
2. Wimalawansa, S.J. Amylin, calcitonin gene-related peptide, calcitonin, and adrenomedullin: A peptide superfamily. *Crit. Rev. Neurobiol.* **11(2-3)**, 167-239 (1997).
3. McLatchie, L.M., Fraser, N.J., Main, M.J., *et al.* RAMPs regulate the transport and ligand specificity of the calcitonin-receptor-like receptor. *Nature* **393(6683)**, 333-339 (1998).
4. Udawela, M., Christopoulos, G., Tilakaratne, N., *et al.* Distinct receptor activity-modifying protein domains differentially modulate interaction with calcitonin receptors. *Mol. Pharmacol.* **69(6)**, 1984-1989 (2006).

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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