

# PRODUCT INFORMATION



## $\alpha$ -CGRP (8-37) (human) (trifluoroacetate salt)

Item No. 24406

<b>Synonyms:</b>	Calcitonin Gene-Related Peptide-1 (8-37) (human), CGRP-1 (8-37) (human), $\alpha$ -Calcitonin Gene-Related Peptide (8-37) (human)	H – Val – Thr – His – Arg – Leu – Ala – Gly – Leu – Leu – Ser – Arg – Ser – Gly – Gly – Val – Val – Lys – Asn – Asn – Phe – Val – Pro – Thr – Asn – Val – Gly – Ser – Lys – Ala – Phe – NH <sub>2</sub>
<b>MF:</b>	C <sub>139</sub> H <sub>230</sub> N <sub>44</sub> O <sub>38</sub> • XCF <sub>3</sub> COOH	
<b>FW:</b>	3,125.6	
<b>Purity:</b>	≥95%	
<b>Supplied as:</b>	A lyophilized powder	• XCF <sub>3</sub> COOH
<b>Storage:</b>	-20°C	
<b>Stability:</b>	≥4 years	

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

### Laboratory Procedures

$\alpha$ -Calcitonin gene-related protein ( $\alpha$ -CGRP) (8-37) (human) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the  $\alpha$ -CGRP (8-37) (human) (trifluoroacetate salt) in water. The solubility of  $\alpha$ -CGRP (8-37) (human) (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

CGRP is a neuropeptide and a product of alternative splicing of the calcitonin gene.<sup>1,2</sup> It induces vasodilation of both arteries and veins in addition to various non-vascular biological activities.  $\alpha$ -CGRP (8-37) is an antagonist of CGRP receptors (IC<sub>50</sub> = 4.9 nM in SK-N-MC cells expressing the human receptor) that inhibits CGRP-induced vasodilation.<sup>2,3</sup> In a mouse model of headache,  $\alpha$ -CGRP (8-37) application to the dura mater reduces behavior induced by application of capsaicin and inflammatory mediators.<sup>4</sup>  $\alpha$ -CGRP (8-37) (human) is a peptide fragment derived from the human CGRP protein sequence.

### References

1. Kyani, A., Mehrabian, M., and Jenssen, H. Quantitative structure-activity relationships and docking studies of calcitonin gene-related peptide antagonists. *Chem. Biol. Drug Des.* **79**(2), 166-167 (2012).
2. Brain, S.D. and Grant, A.D. Vascular actions of calcitonin gene-related peptide and adrenomedullin. *Physiol. Rev.* **84**(3), 903-934 (2004).
3. Miranda, L.P., Holder, J.R., Shi, L., *et al.* Identification of potent, selective, and metabolically stable peptide antagonists to the calcitonin gene-related peptide (CGRP) receptor. *J. Med. Chem.* **51**(24), 7889-7897 (2008).
4. Huang, D., Ren, L., Qiu, C.-S., *et al.* Characterization of a mouse model of headache. *Pain* **157**(8), 1744-1760 (2016).

#### 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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