Calcitonin Gene Related Peptide (CGRP) (83-119), rat TFA

Cat. No.: HY-P1462A
Molecular Formula: C₁₆₂H₂₆₂N₅₀O₅₂S₂.C₂HF₃O₂
Molecular Weight: 3920.32
Sequence: Ser-Cys-Asn-Thr-Ala-Thr-Cys-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 (Disulfide bridge: Cys2-Cys7)
Sequence Shortening: SCNTATCVTHRLAGLSSRGVVVKNFNPRTNVVGSEAF-NH₂ (Disulfide bridge: Cys2-Cys7)
Target: CGRSS Receptor
Pathway: GPCR/G Protein; Neuronal Signaling
Storage: Stored under nitrogen
Powder
-80°C  2 years
-20°C  1 year
In solvent
-80°C  6 months
-20°C  1 month

BIOLOGICAL ACTIVITY

Description
Calcitonin Gene Related Peptide (CGRP) (83-119), rat (TFA) is a 37 amino acid calcitonin family of neuropeptide, acts through calcitonin receptor-like receptor (CRLR).

IC₅₀ & Target
CRLR[1].

In Vitro
Calcitonin Gene Related Peptide (CGRP) (83-119), rat (TFA) belongs to the calcitonin family of neuropeptides which also includes adrenomedullin, amylin, calcitonin, intermedin and calcitonin receptor-stimulating peptide. Calcitonin Gene Related Peptide (CGRP) has two isoforms (αCGRP and βCGRP), and acts through calcitonin receptor-like receptor (CRLR)[3]. Calcitonin Gene Related Peptide (CGRP) plays a key role in migraine pathophysiology and is associated with activation of the trigeminovascular system. CGRP possibly acts postjunctionally in these areas putatively involved in primary headaches[2].

In Vivo
Calcitonin Gene Related Peptide (CGRP) (83-119), rat (TFA) is a potent inducer of oedema in rat orofacial tissue. CGRP (100 µL; 8-33 pM) induces a rapidly developing (5-15 min) and long-lasting (6 h), dose-dependent oedema in the rat cheek. CGRP induces a smaller oedematogenic effect in the rat hind paw also blocked by the CGRP antagonist. CGRP (16 pM) potentiates the oedema induced by co-injected substance P (3.7 nM)[3].

PROTOCOL

Animal Administration [3]
Male Wistar rats, weighing 150-250 g, are used throughout this study. As soon as the righting reflex is lost, the initial (t=0) measurement of cheek thickness (in mm) is made with digital calipers, the intra-oral injection given and then cheek thickness measured again at 5, 15 and 30 min, 1, 2, 3, 4, 6 and 24 h, following agonists (Calcitonin Gene

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**Related Peptide (CGRP) (83-119), rat (TFA), etc** or saline injections. Cheek thickness in λ-carrageenan (CG)-injected animals is measured at 0, 15, 30 min, 1, 2, 3, 4, 5, 6 and 24 h. Paw thickness (in mm) is obtained similarly, using the calipers at the time points indicated for cheek oedema, with the only difference being that the animals are not anesthetized for local (intraplantar) injections\(^3\).

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**REFERENCES**


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**Caution: Product has not been fully validated for medical applications. For research use only.**

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