



LKT Laboratories, Inc.

## Calcitonin Gene Related Peptide, rat

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### Product Information

**Product ID** C0245  
**CAS No.**  
**Chemical Name**  
  
**Synonym** CGRP, rat,  $\alpha$ -CGRP, rat  
  
**Formula**  $C_{162}H_{262}N_{50}O_{52}S_2$   
**Formula Wt.** 3806.33  
**Melting Point**  
**Purity**  $\geq 95\%$   
**Solubility** Soluble in water.

H-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-NH<sub>2</sub>  
(Disulfide Bridge Cys2-Cys7)

**Bulk quantities available upon request**

Product ID	Size
C0245	0.5 mg
C0245	1 mg
C0245	2.5 mg

**Store Temp** -20° C  
**Ship Temp** Ambient

**Description** Calcitonin gene-related peptide (CGRP) is an endogenous neuropeptide that exhibits anti-inflammatory, anti-resorptive, anxiogenic, neuroprotective, and pro-angiogenic activities. In animal models of liver injury, CGRP displays protective benefit, decreasing pro-inflammatory cytokine levels. CGRP also stimulates proliferation of osteoblasts. In animals undergoing testing in an elevated plus maze, CGRP decrease time spent in open arms. This peptide inhibits retinal apoptosis in retinal cells in animal models of coronary artery occlusion. Additionally, CGRP increases expression of CD31, VEGF-A, FGF, and TGF- $\beta$ 1, increasing capillary density in vitro and in animal models of hind limb ischemia. CGRP binds RAMP1 and CGRP receptors.

**References** Ma W, Zhang X, Shi S, et al. Neuropeptides stimulate human osteoblast activity and promote gap junctional intercellular communication. *Neuropeptides*. 2013 Jun;47(3):179-86. PMID: 23726661.

Yang JH, Zhang YQ, Guo Z. Endogenous CGRP protects retinal cells against stress induced apoptosis in rats. *Neurosci Lett*. 2011 Aug 26;501(2):83-5. PMID: 21763400.

Sink KS, Walker DL, Yang Y, et al. Calcitonin gene-related peptide in the bed nucleus of the stria terminalis produces an anxiety-like pattern of behavior and increases neural activation in anxiety-related structures. *J Neurosci*. 2011 Feb 2;31(5):1802-10. PMID: 21289190.

Mishima T, Ito Y, Hosono K, et al. Calcitonin gene-related peptide facilitates revascularization during hindlimb ischemia in mice. *Am J Physiol Heart Circ Physiol*. 2011 Feb;300(2):H431-9. PMID: 21131474.

Kroeger I, Erhardt A, Abt D, et al. The neuropeptide calcitonin gene-related peptide (CGRP) prevents inflammatory liver injury in mice. *J Hepatol*. 2009 Aug;51(2):342-53. PMID: 19464067.

**Caution:** This product is intended for laboratory and research use only. It is not for human or drug use.