



LKT Laboratories, Inc.

## C-Type Natriuretic Peptide, chicken

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### Product Information

Product ID C7998  
CAS No.  
Chemical Name  
  
Synonym CNP  
  
Formula  $C_{93}H_{157}N_{29}O_{29}S_3$   
Formula Wt. 2241.66  
Melting Point  
Purity  $\geq 95\%$   
Solubility Soluble in water.

H-Gly-Leu-Ser-Arg-Ser-Cys-  
Phe-Gly-Val-Lys-Leu-Asp-Arg-  
Ile-Gly-Ser-Met-Ser-Gly-Leu-  
Gly-Cys-OH  
(Disulfide bridge Cys6-Cys22)

**Bulk quantities available upon request**

Product ID	Size
C7998	0.5 mg
C7998	1 mg
C7998	2.5 mg

Store Temp -20°C  
Ship Temp Ambient

**Description** C-type natriuretic peptide (CNP) is a natriuretic peptide (NP) that binds NP-B receptors. This peptide exhibits cardioprotective and anti-inflammatory activities. In animal models, CNP increases conduction velocity in the sinoatrial node and decreases infarct size in models of ischemia/reperfusion. In vitro, CNP decreases basal ATP-sensitive K<sup>+</sup> channel openings and currents. Animal models of mutant CNP display arthritis, cartilage damage, and growth delay, highlighting roles for CNP in the regulation of skeletal growth and inflammation. CNP binding NP receptors increases cGMP levels and opens cystic fibrosis transmembrane receptor (CFTR) Cl<sup>-</sup> channels in a PDE3/cAMP/PKA-dependent manner.

**References** Burley DS, Cox CD, Zhang J, et al. Natriuretic peptides modulate ATP-sensitive K(+) channels in rat ventricular cardiomyocytes. *Basic Res Cardiol.* 2014 Mar;109(2):402. PMID: 24477916.

Azer J, Hua R, Krishnaswamy PS, et al. Effects of natriuretic peptides on electrical conduction in the sinoatrial node and atrial myocardium of the heart. *J Physiol.* 2014 Mar 1;592(Pt 5):1025-45. PMID: 24344164.

De Jonge HR, Tilly BC, Hogema BM, et al. cGMP inhibition of type 3 phosphodiesterase is the major mechanism by which C-type natriuretic peptide activates CFTR in the shark rectal gland. *Am J Physiol Cell Physiol.* 2014 Feb;306(4):C343-53. PMID: 24259420.

Bükülmez H, Khan F, Bartels CF, et al. Protective effects of C-type natriuretic peptide on linear growth and articular cartilage integrity in a mouse model of inflammatory arthritis. *Arthritis Rheumatol.* 2014 Jan;66(1):78-89. PMID: 24449577.

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