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TOCRIS

Print Date: May 15th 2026

Certificate of Analysis

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Product Name: **Brain natriuretic peptide (1-32) (human)** **Catalog No.: 3522** **Batch No.: 9**

CAS Number: 124584-08-3

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	$C_{143}H_{244}N_{50}O_{42}S_4$
Batch Molecular Weight:	3464.05
Physical Appearance:	White lyophilised solid
Solubility:	Soluble in water
Storage:	Store at -20°C
Peptide Sequence:	Ser-Pro-Lys-Met-Val-Gln-Gly-Ser-Gly-Cys-Phe-Gly-Arg-Lys-Met-Asp-Arg-Ile-Ser-Ser-Ser-Ser-Gly-Leu-Gly-Cys-Lys-Val-Leu-Arg-Arg-His

2. ANALYTICAL DATA

HPLC:	Shows 95.0% purity

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Product Name: **Brain natriuretic peptide (1-32) (human)** **Catalog No.: 3522** **Batch No.: 9**

CAS Number: 124584-08-3

Description:

Brain natriuretic peptide (1-32) (human) is an endogenous peptide secreted from cardiac ventricles in response to volume increase and pressure overload that acts as an agonist at atrial natriuretic peptide (ANP) receptor A (NRP1). Decreases de novo collagen synthesis and increases MMP gene expression in vitro. Exhibits natriuretic, vasodilatory and lusitropic activity and inhibits the sympathetic and renin-angiotensin-aldosterone systems in vivo.

Physical and Chemical Properties:

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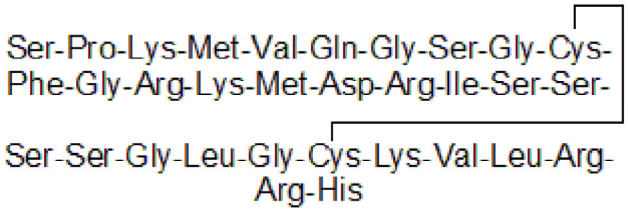
Peptide Sequence:



Storage: Store at -20°C

Solubility & Usage Info:

Soluble in water

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by reconstituting the lyophilized peptide in sterile, deionized water at not less than 100µg/ml. This can then be further diluted with other aqueous solutions. We recommend that stock solutions, once prepared, are stored at 4°C. Generally, this solution will be useable for between 2-7 days. For long term storage we recommend that a carrier protein (0.1% HSA or BSA) is added to the stock solution, which should then be aliquoted out and stored at -20°C for one month. Avoid freeze-thaw cycles.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such Cys, Met,Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 µm filter to remove potential bacterial contamination whenever possible.

References:

Heublein *et al* (2007) Immunoreactivity and guanosine 3',5'-cyclic monophosphate activating actions of various forms of human B-type natriuretic peptide. Hypertension ***49*** 1114. PMID: 17372040.

Wellard *et al* (2006) Natriuretic peptides, but not nitric oxide donors, elevate levels of cytosolic guanosine 3',5'-cyclic monophosphate in ependymal cells ex vivo. Neurosci.Lett. ***392*** 187. PMID: 16278044.

Tsuruda *et al* (2002) Brain natriuretic peptide is produced in cardiac fibroblasts and induces matrix metalloproteinases. Circ.Res. ***91*** 1127. PMID: 12480813.