

# Recombinant Human Brain Natriuretic Peptide

## Certificate of Analysis and Data Sheet

➤ <b>Source:</b> E.Coli	➤ <b>Catalog No.</b> CTK-327
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### ➤ **Background :**

Brain Natriuretic Protein is a protein secreted by the brain and the heart atria, stored mainly in cardiac ventricular myocardium. It can cause Natriuresis; Diuresis; Vasodilation; and inhibits secretion of Renin and Aldosterone.

### ➤ **Description :**

Recombinant Human Brain Natriuretic Peptide produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 32 amino acids, having a molecular mass of 3464 kDa.

Human Brain Natriuretic Peptide is purified by proprietary chromatographic techniques.

### ➤ **Physical Appearance:**

Sterile Filtered White lyophilized (freeze-dried) powder.

### ➤ **Formulation:**

Human Brain Natriuretic Peptide was lyophilized from 0.4ml PBS buffer containing 20mM phosphate buffer and 0.6mM sodium chloride.

### ➤ **Solubility:**

It is recommended to reconstitute the lyophilized Human BNP in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### ➤ **Stability:**

Lyophilized Human BNP although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution Human BNP should be stored at 4 C between 2-7 days and for future use below -18 C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please avoid freeze-thaw cycles.**

### ➤ **Purity:**

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This Human Brain Natriuretic Peptide is fully biologically active when compared to standards.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of Human BNP.

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm.
2. Analysis by RP-HPLC, using a standard solution of Human BNP as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.