

# Recombinant Human B-type Natriuretic Peptide (rh BNP)

**Synonyms:** Natriuretic Peptide Precursor B, NPPB.

**Introduction:** Natriuretic Peptide Precursor B acts as a cardiac hormone with a variety of biological actions including natriuresis, diuresis, vasorelaxation and inhibition of renin and aldosterone secretion. It is thought to play a key role in cardiovascular homeostasis. BNP helps restore the body's salt and water balance and improves heart function.

**Description:** Recombinant human BNP produced in E.Coli is a single, non-glycosylated polypeptide chain containing 32 amino acids and having a molecular mass of 3464 kDa. rh BNP is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*.

**Physical Appearance:** Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:** Lyophilized from 0.4ml PBS buffer containing 20mM phosphate buffer and 0.6mM NaCl. The aliquots of 1µg and 2 µg contain Trehalose 5% (w/vol) for better recovery

**Solubility:** It is recommended to reconstitute the lyophilized rh BNP in sterile H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

**Stability:** Lyophilized rh BNP although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Purity:** Greater than 95.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

**Amino acid Sequence:** SPKMQGSGCFGRKMDRISSSSSGLGCKVLRHH

**Biological Activity:** rh BNP is fully biologically active when compared to standards.

**Protein content:** Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm.
2. Analysis by RP-HPLC, using a calibrated solution of IL-9 as a Reference Standard.

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<i>small</i>	2 µg	Cat.N°	11343782
<i>medium</i>	10 µg	Cat.N°	11343783
<i>large</i>	50 µg	Cat.N°	11343785

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Gladiolenweg 2; 26169 Friesoythe; Germany  
 phone:+49-(0)4491-400997, fax:+49-(0)4491-400998, [info@immunotools.com](mailto:info@immunotools.com)  
[www.immunotools.com](http://www.immunotools.com)