

Recombinant Human Brain Natriuretic Peptide

#R00165

Size: 100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Brain Natriuretic Peptide is encoded by the BNP gene located on the Chr.1 in humans. It is firstly discovered in the porcine brain and given this name, but the protein is mainly expressed in the cardiac ventricles in human body after the excessive stretching of cardiomyocytes. The gene expresses a 134 a.a. sequence which contains a 1-26 a.a. signal peptide and 27-134 a.a. Natriuretic peptides B, and the BNP is the 32 a.a. C-terminus of natriuretic peptides B. The BNP can be cleaved in 16 chains and the rHuBNP is 1-32. BNP acts as a cardiac hormone with a variety of functions including natriuresis, diuresis, vasorelaxation, and inhibition of renin and aldosterone secretion. Additionnaly, it plays a key role in cardiovascular homeostasis, helps restore the body's salt and water balance and improves heart function.

AA Sequence

SPKMOVQSGCGFGRKMDRISSSSGLGCKVLRRH

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	Brain natriuretic peptide 32, Gamma-brain natriuretic peptide, B-type Natriuretic Peptide, GC-B, BNP-32
Accession	P16860
GeneID	4879
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 3.5 kDa, a single non-glycosylated polypeptide chain containing 32 amino acids.
Purity	> 97 % by SDS-PAGE and HPLC analyses.
Biological Activity	Data Not Available.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 µm

filtered concentrated solution in
PBS, pH 7.4.

Endotoxin Less than 1 EU/μg of rHuBNP as
determined by LAL method.
