

Technical Data Sheet

Flogen[®] Recombinant Human Brain Natriuretic Peptide(rHuBNP)

Catalog Number:	PGR0107-009
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 3.5 Da, a single non-glycosylated polypeptide chain containing 32 amino acids.
Quantity:	20µg/100µg/1mg
AA Sequence:	SPKMOVQGGSGC FGRKMDRISS SSGLGCKVLR RH
Purity:	>97% by SDS-PAGE and HPLC analyses.
Biological Activity:	Data Not Available.
Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin:	Less than 1EU/µg of rHuBNP as determined by LAL method.
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.
Storage:	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.
Usage:	This material is for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE.

Brain Natriuretic Peptide

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. Additionally, it plays a key role in cardiovascular homeostasis, helps restore the body's salt and water balance and improves heart function.