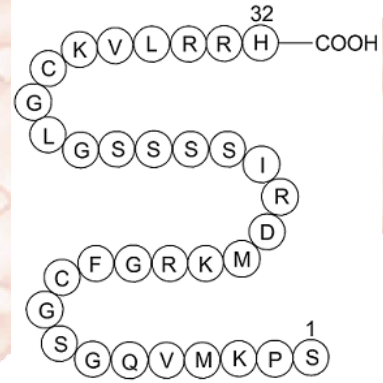


# Product Data Sheet

## BNP (1-32), human

**Cat. No.:** A1105  
**CAS No.:** 114471-18-0  
**Formula:** C143H244N50O42S4  
**M.Wt:** 3464.04  
**Synonyms:** H2N-Ser-Pro-Lys-Met-Val-Gln-Gly-Ser-Gly-Cy  
 s-Phe-Gly-Arg-Lys-Met-Asp-Arg-Ile-Ser-Ser-S  
 er-Ser-Gly-Leu-Gly-Cys-Lys-Val-Leu-Arg-Arg-  
 His-OH  
**Target:** Cardiovascular  
**Pathway:**  
**Storage:** Store at -20°C



## Solvent & Solubility

≥206.6 mg/mL in DMSO

In Vitro

| Preparing<br>Stock Solutions | Mass    |               | 1mg       | 5mg       | 10mg      |
|------------------------------|---------|---------------|-----------|-----------|-----------|
|                              | Solvent | Concentration |           |           |           |
|                              |         | 1 mM          | 0.2887 mL | 1.4434 mL | 2.8868 mL |
|                              |         | 5 mM          | 0.0577 mL | 0.2887 mL | 0.5774 mL |
|                              |         | 10 mM         | 0.0289 mL | 0.1443 mL | 0.2887 mL |

Please refer to the solubility information to select the appropriate solvent.

## Biological Activity

Shortsummary

Brain natriuretic peptide

IC<sub>50</sub> & Target

In Vitro

### Cell Viability Assay

|                     |   |
|---------------------|---|
| Cell Line:          | Normal adult canine ventricular fibroblasts   |
| Preparation method: | The solubility of this peptide in sterile water is >10 mM. Stock solution should be split and stored at -80°C for several months. |

|         |                          |  |
|---------|--------------------------|--|
|         | Reacting conditions:     | 1 $\mu$ M, 5 min   |
|         | Applications:            | BNP (1 $\mu$ M) significantly increased the intracellular cGMP, whereas lower concentrations did not alter the cGMP. At this concentration, BNP elevated cGMP levels with a maximal effect at 5 minutes. BNP (1 $\mu$ M) significantly inhibited the [3H]proline incorporation into the cells by 29%.  |
| In Vivo | <b>Animal experiment</b> |  |
|         | Animal models:           | Adult Japanese white rabbits   |
|         | Dosage form:             | Injected through the sclera into the vitreous cavity, 100 $\mu$ M, 4 hours   |
|         | Applications:            | At 100 $\mu$ M, BNP treatment induced a significant decrease in IOP compared with vehicle-treated eyes. In particular, there were statistically significant differences at 4 and 6 hours. In addition, BNP treatment at 10 $\mu$ M caused a significant decrease in IOP compared to the vehicle-treated eyes, but only at 6 hours after the injection. |
|         | Other notes:             | Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.   |

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

[1] Tsuruda T, Boerrigter G, Huntley B K, et al. Brain natriuretic peptide is produced in cardiac fibroblasts and induces matrix metalloproteinases. *Circulation research*, 2002, 91(12): 1127-1134.

[2] Takashima Y, Taniguchi T, Yoshida M, et al. Ocular hypotensive mechanism of intravitreally injected brain natriuretic peptide in rabbit. *Investigative ophthalmology & visual science*, 1996, 37(13): 2671-2677.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

*Specific storage and handling information for each product is indicated on the product datasheet. Most APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.*



**APExBIO Technology**

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