

Product Data Sheet

Product Name: BNP (1-32), human

Cat. No.: GP10071

Chemical Properties

Cas. No. 114471-18-0

Formula $C_{143}H_{244}N_{50}O_{42}S_4$

M.Wt 3464.04

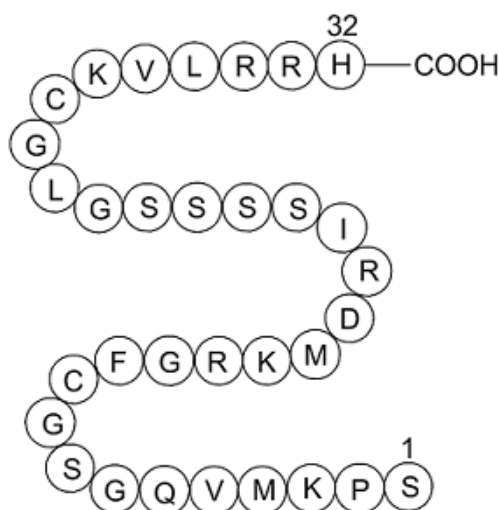
Solubility ≥ 206.6 mg/mL in DMSO

Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Background

BNP (1-32), human, a biologically active 32 amino acid, contains a 17 amino acid disulfide ring and the linear 76 amino acid N-terminal peptide (NT), with cardiorenal protective properties^[1]. BNP (1-32) binds to the natriuretic peptide type A receptor (NPR-A) and via the second messenger cyclic guanosine monophosphate (cGMP) mediates a variety of actions including vasodilation, natriuresis, suppression of renin secretion, lusitropism, and inhibition of fibrosis^[2]. BNP (1-32) is widely used as a biomarker in the diagnosis and prognosis of heart failure and cardiovascular disease^[3].

Caution: Product has not been fully validated for medical applications. For research use only.

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Intravenous infusion of a high dose of BNP (1-32) can lead to a significant increase in plasma free fatty acids^[4].

References:

- [1] Polak J, Kotrc M, Wedellova Z, et al. Lipolytic effects of B-type natriuretic peptide 1–32 in adipose tissue of heart failure patients compared with healthy controls[J]. Journal of the American College of Cardiology, 2011, 58(11): 1119-1125.
- [2] Boerrigter G, Costello-Boerrigter L C, Harty G J, et al. Des-serine-proline brain natriuretic peptide 3–32 in cardiorenal regulation[J]. American journal of physiology-Regulatory, integrative and comparative physiology, 2007, 292(2): R897-R901.
- [3] Heublein D M, Huntley B K, Boerrigter G, et al. Immunoreactivity and guanosine 3', 5'-cyclic monophosphate activating actions of various molecular forms of human B-type natriuretic peptide[J]. Hypertension, 2007, 49(5): 1114-1119.
- [4] Bartels E D, Guo S, Kousholt B S, et al. High doses of ANP and BNP exacerbate lipolysis in humans and the lipolytic effect of BNP is associated with cardiac triglyceride content in pigs[J]. Peptides, 2019, 112: 43-47.

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