
Product Data Sheet

Product Name: ANP (1-11), rat

Cat. No.: GP10137

Chemical Properties

Cas. No.

SMILES N[C@@H](CO)C(N[C@@H](CC(C)C)C(N[C@@H](CCCNC(N)=N)C(N[C@@H](CCCNC(N)=N)C(N[C@@H](CO)C(N[C@@H](CO)C(N[C@@H](CS)C(N[C@@H](CC1=CC=CC=C1)C(NCC(NCC(N[C@@H](CCCNC(N)=N)C(O)=O)=O)=O)=O)=O)=O)=O)=O)=O

Formula C₄₉H₈₄N₂₀O₁₅S M.Wt 1225.38

Solubility ≥ 122.5mg/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

Atrial Natriuretic Peptide (ANP) (C₄₉H₈₄N₂₀O₁₅S) has the sequence of H-Ser-Leu-Arg-Arg-Ser-Ser-Cys-Phe-Gly-Gly-Arg-OH, is a 28 amino acid peptide that is synthesized, stored, and released by atrial myocytes in response to atrial distension, angiotensin II stimulation, endothelin, and sympathetic stimulation. ANP is a powerful vasodilator, and a protein (polypeptide) hormone secreted by heart muscle cells. It is involved in the homeostatic control of body water, sodium, potassium and fat (adipose tissue). It is released by muscle cells in the upper chambers (atria) of the heart (atrial myocytes), in response to high blood pressure. ANP acts to reduce the water, sodium and adipose loads on the circulatory system, thereby reducing blood pressure.

References:

1. Widmaier, Eric P.; Hershel Raff, Kevin T. Strang (2008). Vander's Human Physiology, 11th Ed.. McGraw-Hill. pp. 291, 509-10.
2. Marieb Human Anatomy & Physiology 9th edition, chapter:16, page:629, question

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

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number:14

3. de Bold A (1985). "Atrial natriuretic factor: a hormone produced by the heart". Science 230 (4727): 767-70.

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