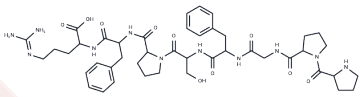
Data Sheet (Cat.No.TP1181)

TargetMol

Bradykinin (2-9)

Chemical Properties



CAS No. : 16875-11-9

Formula: C44H61N11O10

Molecular Weight: 904.02

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Bradykinin (2-9) (Des-Arg1-bradykinin) is an amino-truncated peptide compound that is a metabolite of Bradykinin. It is formed by the cleavage action of Aminopeptidase P.
Targets(IC50)	Bradykinin Receptor
In vitro	The Bradykinin peptide system, crucial for cardiovascular and renal functions, is examined using a highly sensitive amino terminal-directed radioimmunoassay combined with high-performance liquid chromatography. This method allows for the precise measurement of various Bradykinin peptides, including Bradykinin-(1-7), Bradykinin-(1-8), and Bradykinin-(1-9). An additional carboxy terminal-directed radioimmunoassay facilitates the characterization of these peptides in rat kidney and blood. The primary findings indicate that Bradykinin-(1-9) and Bradykinin-(1-7) are the most abundant in the kidney, with significantly lower concentrations of Bradykinin-(1-8) and Bradykinin-(4-9), while Bradykinin-(2-9) and Bradykinin-(3-9) are undetectable. Blood analysis shows very low levels of Bradykinin-(1-9), with other peptides falling below detection thresholds. Administration of the ACE inhibitor Perindopril significantly increases renal levels of Bradykinin-(1-8) and Bradykinin-(1-9), altering the Bradykinin-(1-7)/Bradykinin-(1-9) ratio. This radioimmunoassay approach is also effectively applied to heart, aorta, brown adipose tissue, adrenal, lung, and brain tissues, identifying similar abundance levels of Bradykinin-(1-7) and Bradykinin-(1-9), with Bradykinin-(1-8) present in lower amounts.

Solubility Information

Solubility	DMSO: 10 mM,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (2.21 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.1062 mL	5.5309 mL	11.0617 mL
5 mM	0.2212 mL	1.1062 mL	2.2123 mL
10 mM	0.1106 mL	0.5531 mL	1.1062 mL
50 mM	0.0221 mL	0.1106 mL	0.2212 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Campbell DJ, et al. Bradykinin peptides in kidney, blood, and other tissues of the rat. Hypertension. 1993 Feb;21 (2):155-65.