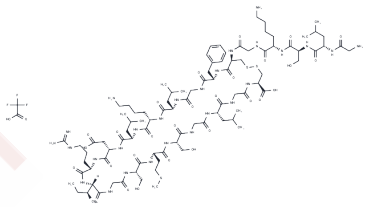
Data Sheet (Cat.No.T39392)

TargetMol

C-Type Natriuretic Peptide (CNP) (1-22), human TFA

Chemical Properties



CAS No. : 1966153-17-2

Formula: C95H158F3N27O30S3

Molecular Weight: 2311.64

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	C-Type Natriuretic Peptide (CNP) (1-22), human (TFA), is a 22 amino acid fragment of CNP that functions as an agonist for the natriuretic peptide receptor B (NPR-B). It can inhibit cAMP synthesis induced by histamine, 5-HT, or Forskolin, while exhibiting strong endothelial-derived relaxation properties and acting as a growth inhibitor.
Targets(IC50)	Endothelin Receptor,Histamine Receptor
In vitro	C-Type Natriuretic Peptide (CNP) (1-22), human (TFA) (0.01, 0.1, 1, 10, 100, 1000 nM) enhances cGMP production in CHO cells express ng human NPR-B in a concentration-dependent manner[1]. PK parameters of CNP immunoreactivity after a s ngle intravenous dose of CNP (1-22), human (TFA)[1]: 20 nM/kg dose–AUC 0→∞: 320±54 pMmin/mL, MRT 0→∞: 1.02±0.18 min, T1/2: 1.42±0.45 min, CL tot: 63.9±11.9 mL/min/kg, Vd ss: 64.2±5.1 mL/kg. PK parameters after a s ngle subcutaneous dose of CNP (1-22), human (TFA)[1]: 50 nM/kg dose–Cmax: 9.02±3.74 pM/mL, Tmax: 5.0±0.0 min, AUC 0→∞: 152±73pM·min/mL, MRT 0→∞: 13.9±3.4 min, T1/2: 10.0±5.0 min, BA: 19±9%. Values represent the mean±SD of 3 rats. i.c.v. administration of CNP (1-22) at 2 nM increases the severity of picrotoxin-kindled convulsions 24 and 48 hours post-application[3].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.4326 mL	2.163 mL	4.3259 mL
5 mM	0.0865 mL	0.4326 mL	0.8652 mL
10 mM	0.0433 mL	0.2163 mL	0.4326 mL
50 mM	0.0087 mL	0.0433 mL	0.0865 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

Morozumi N, et al. ASB20123: A novel C-type natriuretic peptide derivative for treatment of growth failure and dwarfism. PLoS One. 2019 Feb 22;14(2):e0212680.
Mazarati AM, et al. ANP(1-28), BNP(1-32) and CNP(1-22) increase the severity of picrotoxin-kindled seizure syndrome in rats. Life Sci. 1993;52(3):PL19-24.

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