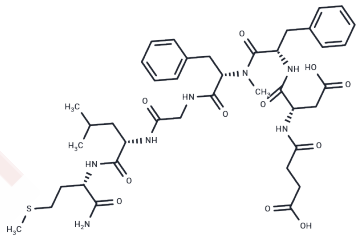
Data Sheet (Cat.No.T7633)

TargetMol

Senktide

Chemical Properties



CAS No. : 106128-89-6

Formula: C40H55N7O11S

Molecular Weight: 841.97

Storage: Keep away from moisture,Keep away from direct sunlight,Store at low temperature
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	Senktide is an agonist of tachykinin NK3 receptor.
Targets(IC50)	Neurokinin receptor
In vitro	A subpopulation of dopamine-sensitive neurones were encountered which were potently excited by bath application of the NK3 receptor agonist, senktide.?On these senktide-sensitive neurones, NK1 and NK2 receptor agonists were inactive.?The excitatory action of senktide supports a role for tachykinins as putative neurotransmitters in the basal ganglia[1].
In vivo	locomotor activity induced by the tachykinin NK(3) receptor agonist senktide was characterized.?Injection of senktide i.c.v. was found to dose-dependently induce hyperlocomotion from a dose of 0.06 nmol to the maximal dose tested, 0.6 nmol.?Locomotion induced by 0.1 nmol of senktide could be blocked by injection of the tachykinin NK(3) receptor antagonists SB222200 (10 and 30 mg/kg i.p.) and talnetant (SB223412;?10 and 30 mg/kg i.p.), as well as by osanetant (SR142801;?10 and 30 mg/kg i.p.) when administered in a vehicle containing vitamin E and glycofurol.?Senktide-induced activity was also reversed by the antipsychotics haloperidol (0.3 and 1 mg/kg p.o.) and risperidone (1 mg/kg p.o.), but not by the serotonin 5HT(2a/c) receptor antagonist MDL100907 (tested at 0.1, 0.3 and 1 mg/kg p.o.).?Hyperlocomotion induced by 0.03 nmol of senktide was potentiated by antagonism of the tachykinin NK(1) receptor with aprepitant (1, 3 and 10 mg/kg, p.o.).?Thus, hyperlocomotion induced by senktide in gerbils is a tachykinin NK(3) receptor-mediated behavior that is appropriate for use in testing tachykinin NK(3) receptor activity of novel compounds[2].

Solubility Information

Solubility	DMSO: 50 mg/mL (59.38 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 (2.38 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	1.1877 mL	5.9385 mL	11.8769 mL
5 mM	0.2375 mL	1.1877 mL	2.3754 mL
10 mM	0.1188 mL	0.5938 mL	1.1877 mL
50 mM	0.0238 mL	0.1188 mL	0.2375 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

Keegan KD, et al. The selective NK3 receptor agonist senktide excites a subpopulation of dopamine-sensitiveneurones in the rat substantia nigra pars compacta in vitro. Br J Pharmacol. 1992 Jan;105(1):3-5.
Nordquist RE, et al. The tachykinin NK3 receptor agonist senktide induces locomotor activity in male Mongolian gerbils. Eur J Pharmacol. 2008 Dec 14;600(1-3):87-92.