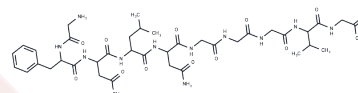


Speract

Chemical Properties

CAS No. :	76901-59-2
Formula:	C38H57N11O14
Molecular Weight:	891.93
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Speract, a peptide from sea urchin eggs, regulates sperm motility and stimulates sperm mitochondrial metabolism.
Targets(IC50)	Mitochondrial Metabolism
In vitro	The stimulation of sperm with speract depolarizes the mitochondrion and increases the levels of NADH. Surprisingly, these responses are independent of external Ca(2+) and are due to the increase in intracellular pH (pHi) induced by speract. Speract, by regulating pHi, in addition to [Ca(2+)]i, may finely modulate mitochondrial metabolism to control motility and ensure that sperm reach the egg and fertilize it[1].

Solubility Information

Solubility	DMSO: 10 mM, Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.1212 mL	5.6058 mL	11.2116 mL
5 mM	0.2242 mL	1.1212 mL	2.2423 mL
10 mM	0.1121 mL	0.5606 mL	1.1212 mL
50 mM	0.0224 mL	0.1121 mL	0.2242 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

Darszon, Alberto, Garcia-Rincon, et al. Speract, a sea urchin egg peptide that regulates sperm motility, also stimulates sperm mitochondrial metabolism[J]. Biochimica Et Biophysica Acta Bioenergetics, 2016.

Hansbrough J . Speract: Purification and characterization of a peptide associated with egg that activates spermatozoa[J]. J Biol Chem, 1981, 256(3):1447-1452.

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