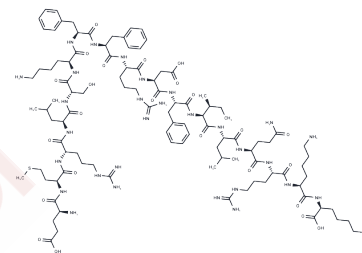


## CSP1

## Chemical Properties

CAS No. :	172889-49-5
Formula:	C103H168N30O24S
Molecular Weight:	2242.72
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	CSP1 is a highly potent and selective agonist of the ComD1 receptor, exhibiting an IC50 value of 10.3 nM. It represents a major variant of competence-stimulating peptide (CSP) and plays a crucial role in regulating the genetic transformation of <i>S. pneumoniae</i> through modulation of quorum sensing (QS). Additionally, CSP1 possesses antibacterial activity, further enhancing its potential as an effective antibacterial agent.
Targets(IC50)	Antibacterial

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.4459 mL	2.2294 mL	4.4589 mL
5 mM	0.0892 mL	0.4459 mL	0.8918 mL
10 mM	0.0446 mL	0.2229 mL	0.4459 mL
50 mM	0.0089 mL	0.0446 mL	0.0892 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

- Yang Y, et, al. Structural Characterization of Competence-Stimulating Peptide Analogues Reveals Key Features for ComD1 and ComD2 Receptor Binding in *Streptococcus pneumoniae*. *Biochemistry*. 2018 Sep 11;57(36):5359-5369.
- Johnsborg O, et, al. A hydrophobic patch in the competence-stimulating Peptide, a pneumococcal competence pheromone, is essential for specificity and biological activity. *J Bacteriol*. 2006 Mar; 188(5): 1744-9.

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