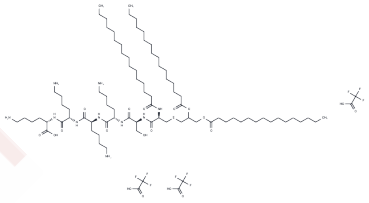
Data Sheet (Cat.No.TP1067)

TargetMol

Pam3CSK4 TFA (112208-00-1 free base)

Chemical Properties



CAS No. : 112208-01-2

Formula: C87H159F9N10O19S

Molecular Weight: 1852.33

Storage: Store at low temperature,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	Pam3CSK4 TFA (Pam3Cys-Ser-(Lys)4 TFA) is a Toll-like receptor 1/2 agonist with EC50 of 0.47 ng/mL for human TLR1/2.
Targets(IC50)	TLR
In vitro	Pretreatment with high doses of Pam3CSK4 TFA (Pam3Cys-Ser-(Lys)4 TFA) (>25 μg/ml) improves the antimicrobial activity of neutrophils generated directly from mouse bone marrow. [3]
In vivo	**METHODS**: Mice were intraperitoneally (ip) injected with Pam3CSK4 TFA (Pam3Cys-Ser-(Lys)4 TFA) (5 mg/kg) from postnatal day (PND) 3 to 11. Pups were killed at PND12 or PND53, and brains, spleens, and livers were collected and weighed. Brain sections were stained for markers of brain injury. **RESULTS** Nine days after administration of Pam3CSK4 TFA (Pam3Cys-Ser-(Lys)4 TFA), mice showed a decrease in gray matter volume, white matter volume in the molecular layer of the forebrain and cerebellum, and an increase in spleen and liver weight at PND12. [1]

Solubility Information

Solubility	H2O: 16.67 mg/mL (9 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.5399 mL	2.6993 mL	5.3986 mL
5 mM	0.108 mL	0.5399 mL	1.0797 mL
10 mM	0.054 mL	0.2699 mL	0.5399 mL
50 mM	0.0108 mL	0.054 mL	0.108 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

Irvine KL, et al. The molecular basis for recognition of bacterial ligands at equine TLR2, TLR1 and TLR6. Vet Res. 2013 Jul 4;44:50.
Irvine KL, et al. The molecular basis for recognition of bacterial ligands at equine TLR2, TLR1 and TLR6. Vet Res. 2013 Jul 4;44(1):50. doi: 10.1186/1297-9716-44-50.
Chen Y, et al. TLR2 agonist Pam3CSK4 enhances the antibacterial functions of GM-CSF induced neutrophils to methicillin-resistant Staphylococcus aureus. Microb Pathog. 2019 May;130:204-212.