Product Datasheet

Technical Data

Formula	$C_{20}H_{24}N_{10}O_{13}P_2 \cdot xNa+$					
Molecular Weight	672.4	**CAS No.**	849214-04-6(freeacid)			
Solubility (25°C)*	In vitro	Water	100 mg/mL (148.72 mM)			
		DMSO	20 mg/mL (29.74 mM)			
		Ethanol	Insoluble			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.
		Injection	Clear solution	5%DMSO [1] → 40%PEG300 [2] → 5%Tween80 [3] → 50%ddH2O Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	0.160mg/ml (0.24mM)	Taking the 1 mL working solution as an example, add 50 μL of 3.2 mg/ml clarified DMSO stock solution to 400 μL of PEG300, mix evenly to clarify it; add 50 μL of Tween80 to the above system, mix evenly to clarify; then continue to add 500 μL of ddH2O to adjust the volume to 1 mL. The mixed solution should be used immediately for optimal results.
			Clear solution	5% DMSO [1] → 95% Corn oil Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	0.160mg/ml (0.24mM)	Taking the 1 mL working solution as an example, add 50 μL of 3.2 mg/ml clear DMSO stock solution to 950 μL of corn oil and mix evenly. The mixed solution should be used immediately for optimal results.

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Concentration \ Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.4872 mL	7.4360 mL	14.8721 mL
5 mM	0.2974 mL	1.4872 mL	2.9744 mL
10 mM	0.1487 mL	0.7436 mL	1.4872 mL
50 mM	0.0297 mL	0.1487 mL	0.2974 mL

Biological Activity

Description	3',3'-cGAMP (3',3'-cyclic GMP-AMP, Cyclic GMP-AMP, cGAMP) activates the endoplasmic reticulum (ER)-resident receptor **stimulator of interferon genes (STING)**, thereby inducing an antiviral state and the secretion of type I IFNs.
Targets	STING [1]
In vivo	Sublingual immunization of mice with Bacillus anthracis protective antigen (PA) and the STING ligand 3′3′-cGAMP promotes PA-specific serum IgG Ab responses of the same magnitude as those induced after immunization with PA and the experimental adjuvants cholera toxin (CT). 3′3′-cGAMP also promotes serum anti-PA IgA and IgA-producing cells in the bone marrow. Furthermore, the saliva of mice immunized with 3′3′-cGAMP exhibits similar levels of PA-specific IgA Abs as groups immunized with CT as adjuvant. The adjuvant activity of 3′3′-cGAMP is associated with mixed Th1, Th2, and Th17 responses. 3′3′-cGAMP also induces rapid IFN-β and IL-10 responses in sublingual tissues and cervical lymph nodes, and TGF-β responses in the cervical lymph nodes, which can contribute to promoting IgA responses after sublingual immunization.[1]

Protocol (from reference)

Animal Study:[1]

- **Animal Models**
  9–12 week old female C57BL/6J mice
- **Dosages**
  10 μg
- **Administration**
  Oral gavage

References

https://pubmed.ncbi.nlm.nih.gov/28343781/

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

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