

Product Name: 3',2'-cGAMP sodium salt

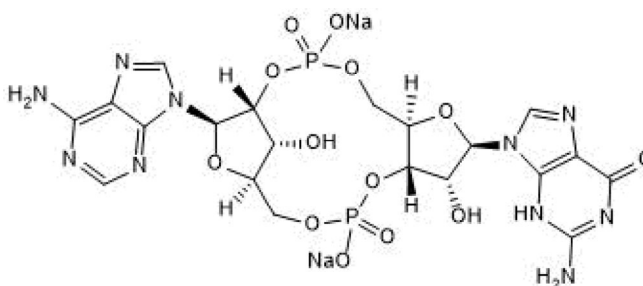
Catalog No.: 7718

Batch No.: 2

IUPAC Name: 3',2'-Cyclic guanosine monophosphate-adenosine monophosphate sodium salt

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₂₀ H ₂₂ N ₁₀ Na ₂ O ₁₃ P ₂
Batch Molecular Weight:	718.38
Physical Appearance:	White lyophilised solid
Solubility:	water to 10 mM
Storage:	Store at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 99.0% purity
Mass Spectrum:	Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

3',2'-cGAMP sodium salt is a second messenger in the antiviral immune response in *Drosophila melanogaster* and in bacteria. 3',2'-cGAMP is selective for *Drosophila* stimulator of interferon genes (dSTING); induces expression of STING and STING-related genes. After injection of *drosophila* C virus dsRNA into *Drosophila*, 3',2'-cGAMP activates STING-dependent antiviral immunity *in vivo*, reduces viral RNA load and increases survival. In bacteria 3',2'-cGAMP activates DNA degradation of AsCap5 and LICap5.

Physical and Chemical Properties:

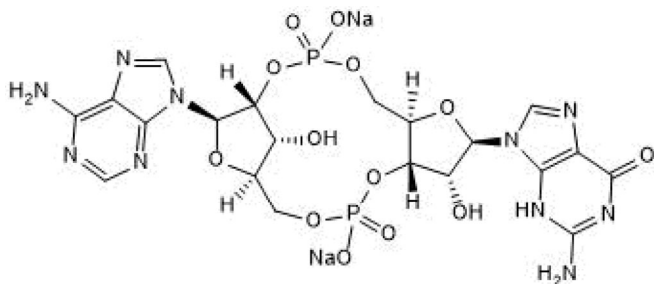
Batch Molecular Formula: C₂₀H₂₂N₁₀Na₂O₁₃P₂

Batch Molecular Weight: 718.38

Physical Appearance: White lyophilised solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

water to 10 mM

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Fatma *et al* (2021) Molecular mechanisms of the CdnG-Cap5 antiphage defense system employing 3',2'-cGAMP as the second messenger. *Nat. Commun.* **12** 6831. PMID: 34737303.

Slavik *et al* (2021) cGAS-like receptors sense RNA and control 3',2'-cGAMP signalling in *Drosophila*. *Nature* **597** 109. PMID: 34261127.

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