

**Product Name:** c-Di-AMP sodium salt

**Catalog No.:** 5901

**Batch No.:** 4

CAS Number: 2734909-87-4

IUPAC Name: 3',5'-Cyclic diadenylic acid sodium salt

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>20</sub>H<sub>22</sub>N<sub>10</sub>Na<sub>2</sub>O<sub>12</sub>P<sub>2</sub>

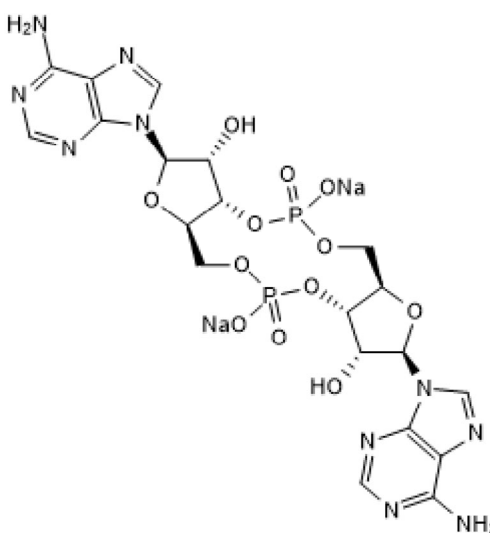
**Batch Molecular Weight:** 702.38

**Physical Appearance:** White solid

**Solubility:** water to 20 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.7% purity

**Mass Spectrum:** Consistent with structure

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

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IUPAC Name: 3',5'-Cyclic diadenylic acid sodium salt

**Description:**

c-Di-AMP sodium salt is an endogenous STING and DDX41 agonist; mediates DDX41-STING interaction. Activates STING-dependent IFN- $\beta$  production in mouse and human cells. Also A<sub>2A</sub> inverse agonist. Selectively induces apoptosis of monocytes in human PBMC cultures and in NSG mice transplanted with human CD34<sup>+</sup> cells. This product is sold in units of 702 $\mu$ g, equivalent to 1 $\mu$ mol.

**Physical and Chemical Properties:**

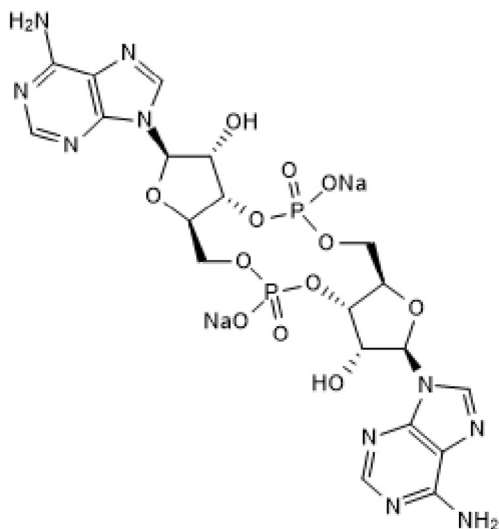
Batch Molecular Formula: C<sub>20</sub>H<sub>22</sub>N<sub>10</sub>Na<sub>2</sub>O<sub>12</sub>P<sub>2</sub>

Batch Molecular Weight: 702.38

Physical Appearance: White solid

**Minimum Purity:**  $\geq$ 98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

water to 20 mM

This product is supplied as a lyophilized solid and may 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. Our standard recommendations are:

**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:**

**Tosolini et al** (2015) Human monocyte recognition of adenosine-based cyclic dinucleotides unveils the A<sub>2a</sub> G<sub>αs</sub> protein-coupled receptor tonic inhibition of mitochondrially induced cell death. *Mol.Cell.Biol.* **35** 479. PMID: 25384972 .

**Parvatiyar et al** (2012) The helicase DDX41 recognizes the bacterial secondary messengers cyclic di-GMP and cyclic di-AMP to activate a type I IF. immune response. *Nat.Immunol.* **13** 1155. PMID: 23142775.

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