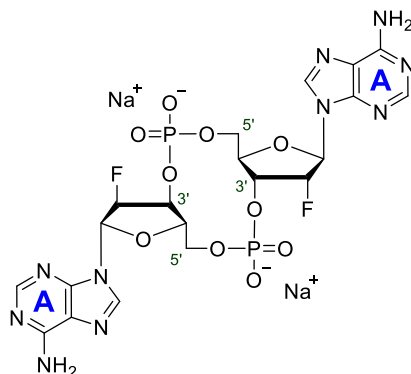


## Technical Information about 2',2''-Di-F-c-didAMP

Fluorinated analogue of the bacterial second messenger c-diAMP

Update: March 17, 2021 AI



**Abbreviation:** 2',2''-Di-F-c-didAMP

Formula	CAS No.	Molecular Weight	UV	BIOLOG Cat. No.
C <sub>20</sub> H <sub>22</sub> F <sub>2</sub> N <sub>10</sub> O <sub>10</sub> P <sub>2</sub> (free acid)	[1427269-47-3] (free acid)	662.4 (free acid)	λ <sub>max</sub> 259 nm / ε 27000 / pH 7	D 132

**Name:** 2'-, 2''- Dideoxy- 2'-, 2''- difluoro- cyclic diadenosine monophosphate, sodium salt  
Syn.: c-di-2'F-AMP / 2'-Fluoro-c-di-AMP / Fluorinated c-diAMP

**Description:** 2',2''-Di-F-c-didAMP is an analogue of the bacterial second messenger c-diAMP (Cat. No. C 088) in which the ribose 2'-hydroxy groups have been replaced by fluorine atoms.

**Properties:** 2',2''-Di-F-c-didAMP is a fluorinated version of c-diAMP with increased metabolic stability and can be useful in studies on ligand-receptor interactions with c-diAMP and c-diGMP-binding proteins.

**Specification:** Crystallized or lyophilized sodium salt. Please keep in mind that equal concentrations of the compound may look different in volume due to sensitivity of the lyophilized form to humidity. The compound can even contract to small droplets. Normally the product is located in the conical bottom of the tube. Micromolar quantities are determined by UV at λ<sub>max</sub>.

**Purity:** Typical analysis is better than 95% (HPLC / UV / 259 nm). The product is not sterile and has not been tested for endotoxins.

**Solubility:** 2',2''-Di-F-c-didAMP is soluble in water (≥ 1.7 mM, limits have not been determined). Please rinse tube walls carefully and preferably use ultrasonic or vortex to achieve total and uniform mixing. When opening the tube please make sure that no substance is lost within the cap.

**Stability and Storage:** 2',2''-Di-F-c-didAMP has sufficient stability at room temperature and does not need special care during handling or shipment. Nevertheless, we recommend that the compound should be stored in the freezer, for longer storage periods preferably in freeze-dried form.

**Toxicity and Safety:** Please keep in mind, that the *in vivo* properties of this compound are not sufficiently characterized up to now. Avoid contact with eyes and skin or ingestion and allow only trained personnel to handle the product. Our products are designed, developed and sold for research purposes only! They are intended for *in vitro* and nonhuman *in vivo* laboratory applications. Any other use requires approval of health authorities.

**Not for drug, household or related uses!**

### Selected References for 2',2''-Di-F-c-didAMP:

Meehan, R.E.; Torgerson, C.D.; Gaffney, B.L.; Jones, R.A.; Strobel, S.A., *Biochemistry*, **55**, 837 - 849 (2016): "Nuclease-Resistant c-di-AMP Derivatives that Differentially Recognize RNA and Protein Receptors"

**Selected Reference for the related Compound 2',2''-Di-F-c-diGMP (Fluorinated c-diGMP, Cat. No. D 210):**

Shanahan, C.A.; Gaffney, B.L.; Jones, R.A.; Strobel, S.A., *J. Am. Chem. Soc.*, **133**, 15578 - 15592 (2011): "Differential Analog Binding by two Classes of c-di-GMP Riboswitches"