

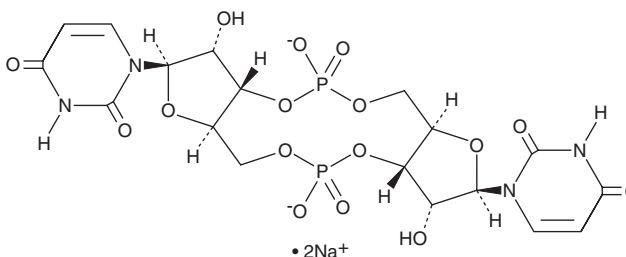
# PRODUCT INFORMATION



## Cyclic di-UMP (sodium salt)

Item No. 33890

**Formal Name:** uridylyl-(3'→5')-3'-uridylic acid, cyclic nucleotide, disodium salt  
**Synonyms:** c-di-UMP, c-UpUp, Cyclic di-Uridine monophosphate, 3'3'-Cyclic UMP-UMP  
**MF:** C<sub>18</sub>H<sub>20</sub>N<sub>4</sub>O<sub>16</sub>P<sub>2</sub> • 2Na  
**FW:** 656.3  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Cyclic di-UMP (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the cyclic di-UMP (sodium salt) in water. We do not recommend storing the aqueous solution for more than one day.

### Description

Cyclic di-UMP is a pyrimidine-containing cyclic dinucleotide (CDN).<sup>1</sup> It is produced by bacterial cGAS/DncV-like nucleotidyltransferases (CD-NTases), such as LpCdnE02 from *L. pneumophila*, and binds to cGAS, in the apo or dsDNA-bound forms, with reduced affinity compared to 2'3'-cGAMP (Item No. 19887) or 3'3'-cGAMP (Item No. 17966).<sup>1,2</sup> Cyclic di-UMP is intended for use as a negative control for cyclic di-GMP signaling.

### References

1. Whiteley, A.T., Eaglesham, J.B., de Oliveira Mann, C.C., *et al.* Bacterial cGAS-like enzymes synthesize diverse nucleotide signals. *Nature* **564(7747)**, 194-199 (2019).
2. Hall, J., Ralph, E.C., Shanker, S., *et al.* The catalytic mechanism of cyclic GMP-AMP synthase (cGAS) and implications for innate immunity and inhibition. *Protein Sci.* **26(12)**, 2367-2380 (2017).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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