

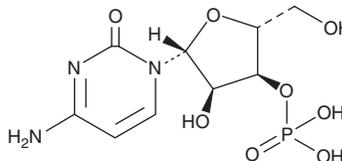
# PRODUCT INFORMATION



## Cytidine 3'-monophosphate

Item No. 33833

**CAS Registry No.:** 84-52-6  
**Formal Name:** 3'-cytidylic acid  
**Synonyms:** 3'-CMP, Cytidine 3'-phosphate  
**MF:** C<sub>9</sub>H<sub>14</sub>N<sub>3</sub>O<sub>8</sub>P  
**FW:** 323.2  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 275 nm  
**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

Cytidine 3'-monophosphate is supplied as a solid. Aqueous solutions of cytidine 3'-monophosphate can be prepared by directly dissolving the solid in aqueous buffers. Cytidine 3'-monophosphate is slightly soluble in PBS (pH 7.2). It is also soluble in water. We do not recommend storing the aqueous solution for more than one day.

### Description

Cytidine 3'-monophosphate is a ribonucleotide.<sup>1</sup> It is produced by hydrolysis of cytidine 2',3'-cyclic monophosphate via RNase, which is inhibited by cytidine 3'-monophosphate, and can be dephosphorylated to cytidine (Item No. 29602) by 3'-nucleotidase.<sup>2-4</sup>

### References

1. Unemoto, T., Takahashi, F., and Hayashi, M. Relationship between the active sites of 2',3'-cyclic phosphodiesterase with 3'-nucleotidase activity purified from *Vibrio alginolyticus*. *Biochim. Biophys. Acta* **185(1)**, 134-142 (1969).
2. Moussaoui, M., Nogués, M.V., Guasch, A., *et al.* The subsites structure of bovine pancreatic ribonuclease A accounts for the abnormal kinetic behavior with cytidine 2',3'-cyclic phosphate. *J. Biol. Chem.* **273(40)**, 25565-25572 (1998).
3. Kandeel, M. and Al-Taher, A. Metabolic drug targets of the cytosine metabolism pathways in the dromedary camel (*Camelus dromedarius*) and blood parasite *Trypanosoma evansi*. *Trop. Anim. Health Prod.* **52(6)**, 3337-3358 (2020).
4. Doucet, N., Jayasundera, T.B., Simonović, M., *et al.* The crystal structure of ribonuclease A in complex with thymidine-3'-monophosphate provides further insight into ligand binding. *Proteins* **78(11)**, 2459-2468 (2010).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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