2’-Deoxyguanosine 5’-monophosphate (sodium salt hydrate)
Item No. 16408

CAS Registry No.: 146877-98-7
Formal Name: 2’-deoxy-5’-guanylic acid, disodium salt hydrate
Synonym: dGMP
MF: C_{10}H_{12}N_{5}O_{7}P • 2Na [XH_{2}O]
FW: 391.2
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures
For long term storage, we suggest that 2’-deoxyguanosine 5’-monophosphate (dGMP) (sodium salt hydrate) be stored as supplied at -20°C. It should be stable for at least two years.

dGMP (sodium salt hydrate) is supplied as a crystalline solid. Aqueous solutions of dGMP (sodium salt hydrate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of dGMP (sodium salt hydrate) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

dGMP is used as a substrate of guanylate kinases to generate dGDP, which in turn is phosphorylated to dGTP, a nucleotide precursor used in DNA synthesis. In addition, dGMP can be efficiently phosphorylated by the type I thymidylate kinase of the malarial agent *P. falciparum*.1,2 In humans, deficiency of mitochondrial deoxyguanosine kinase, which synthesizes dGMP from ATP and deoxyguanosine, contributes to mitochondrial DNA depletion syndrome.2,3

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/16355

**WARNING:** This product is for laboratory research only; not for administration to humans. Not for human or veterinary diagnostic or therapeutic use.

SafETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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Cayman Chemical
Mailing address
1180 E. Ellsworth Road
Ann Arbor, MI
48108 USA

Phone
(800) 364-9897
(734) 971-3335

Fax
(734) 971-3640

E-Mail
custserv@caymanchem.com

Web
www.caymanchem.com