

## Product Datasheet

# Guanosine 5'-monophosphate disodium salt (orb1221452)

<b>Catalog Number</b>	orb1221452
<b>Category</b>	Small Molecules
<b>Description</b>	<p>Guanosine monophosphate also known as guanylic acid or 5'-GMP belongs to the class of organic compounds known as purine ribonucleoside monophosphates. In particular L-Glutamic acid and guanosine monophosphate can be biosynthesized from xanthylic acid and L-glutamine; which is catalyzed by the enzyme GMP synthase [glutamine-hydrolyzing]. In addition Guanosine triphosphate and guanosine monophosphate can be biosynthesized from diguanosine tetraphosphate; which is catalyzed by the enzyme bis(5'-nucleosyl)-tetraphosphatase [asymmetrical]. In humans guanosine monophosphate is involved in the kanamycin action pathway the telithromycin action pathway the tobramycin action pathway and the erythromycin action pathway. Guanosine monophosphate is also involved in several metabolic disorders some of which include the AICA-ribosiduria pathway adenosine deaminase deficiency adenosine phosphoribosyltransferase deficiency (aprt) and the 2-hydroxyglutric aciduria (D and L form) pathway. Outside of the human body guanosine monophosphate can be found in a number of food items such as onion-family vegetables millet chinese water chestnut and red rice. This makes guanosine monophosphate a potential biomarker for the consumption of these food products.</p>
<b>Target</b>	Others
<b>Purity</b>	>98% (HPLC)
<b>MW</b>	425.2
<b>Solubility (25°C)</b>	Water:200 mM
<b>CAS Number</b>	5550-12-9
<b>Formula</b>	$C_{10}H_{14}N_5Na_2O_9P$

### Biorbyt Ltd.

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)

### Biorbyt LLC

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713-2847  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)9065211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)6518558)

<b>SMILES</b>	<chem>O.[Na+].[Na+].Nc1nc2n(cnc2c(=O)[nH]1)[C@@H]1O[C@H](COP([O-])([O-])=O)[C@@H](O)[C@H]1O</chem>
<b>Storage</b>	Storage temperature: -20°C. Stability: ≥ 2 years
<b>Note</b>	For research use only
<b>Expiration Date</b>	12 months from date of receipt.

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#### **Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

#### **Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713-2847  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)