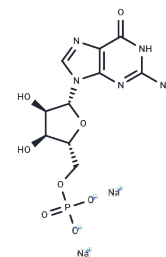


5'-Guanylic acid disodium salt

Chemical Properties

CAS No. :	5550-12-9
Formula:	C ₁₀ H ₁₄ N ₅ Na ₂ O ₉ P
Molecular Weight:	425.20
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	5'-Guanylic acid disodium salt (GMP-5) is a purine ribonucleoside monophosphate. L-Glutamic acid and guanosine monophosphate are biosynthesized from xanthylic acid and L-glutamine via GMP synthase [glutamine-hydrolyzing]. Guanosine triphosphate and guanosine monophosphate are biosynthesized from diguanosine tetraphosphate via bis(5'-nucleosyl)-tetraphosphatase [asymmetrical]. In humans, guanosine monophosphate is involved in the kanamycin, telithromycin, tobramycin, and erythromycin action pathways, and several metabolic disorders including AICA-ribosiduria, adenosine deaminase deficiency, adenine phosphoribosyltransferase deficiency (aprt), and 2-hydroxyglutric aciduria (D and L form) pathways. Guanosine monophosphate is also found in foods like onion-family vegetables, millet, Chinese water chestnut, and red rice, serving as a potential biomarker for the consumption of these foods.
Targets(IC50)	Endogenous Metabolite,iGluR

Solubility Information

Solubility	H ₂ O: 100 mg/mL (235.18 mM),Sonication is recommended. DMSO: Insoluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3518 mL	11.7592 mL	23.5183 mL
5 mM	0.4704 mL	2.3518 mL	4.7037 mL
10 mM	0.2352 mL	1.1759 mL	2.3518 mL
50 mM	0.047 mL	0.2352 mL	0.4704 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Chen J, Li T, Huang D, et al. Integrating UHPLC-MS/MS quantitative analysis and exogenous purine supplementation to elucidate the antidepressant mechanism of Chaigui granules by regulating purine metabolism. *Journal of Pharmaceutical Analysis*. 2023

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Tel: 781-999-4286 E_mail: info@targetmol.com Address: 34 Washington Street, Wellesley Hills, MA 02481