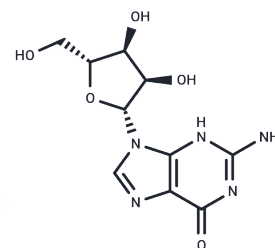


Guanosine

Chemical Properties

CAS No. :	118-00-3
Formula:	C ₁₀ H ₁₃ N ₅ O ₅
Molecular Weight:	283.24
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	Guanosine (DL-Guanosine) is a purine nucleoside formed from a beta-N9-glycosidic bond between guanine and a ribose ring, and is essential for metabolism.
Targets(IC50)	Endogenous Metabolite,HSV
In vitro	Guanosine is a purine nucleoside comprising guanine attached to a ribose (ribofuranose) ring via a β-N9-glycosidic bond. Guanosine can be phosphorylated to become guanosine monophosphate (GMP), cyclic guanosine monophosphate (cGMP), guanosine diphosp
Kinase Assay	Tyrosine kinase assays: The tyrosine kinase activities are determined in 96-well ELISA plates precoated with 20 µg/mL Poly (Glu,Tyr)4:1. First, 80 µL of 5 µM ATP solution diluted in kinase reaction buffer (50 mM HEPES pH 7.4, 20 mM MgCl ₂ , 0.1 mM MnCl ₂ , 0.2 mM Na ₃ VO ₄ , 1 mM DTT) is added to each well. Various concentrations of AST-1306 diluted in 10 µL of 1% DMSO (v/v) are then added to each reaction well, with 1% DMSO (v/v) used as the negative control. Subsequently, the kinase reaction is initiated by the addition of purified tyrosine kinase proteins diluted in 10 µL of kinase reaction buffer solution. Experiments at each concentration are performed in duplicate. After incubation for 60 min at 37 °C, the plate is washed three times with phosphate buffered saline (PBS) containing 0.1% Tween 20 (T-PBS). Next, 100 µL anti-phosphotyrosine antibody (PY99, 1:500 dilution) diluted in T-PBS containing 5 mg/mL BSA is added. After 30 min incubation at 37 °C, the plate is washed three times as before. Horseradish peroxidase-conjugated goat anti-mouse IgG (100 µL) diluted 1:2000 in T-PBS containing 5 mg/mL BSA is added. The plate is reincubated at 37 °C for 30 min, and then washed with PBS. Finally, 100 µL of a solution containing 0.03 % Water ₂ and 2 mg/mL o-phenylenediamine in 0.1 M citrate buffer, pH 5.5, is added and samples are incubated at room temperature until color emerged. The reaction is terminated by the addition of 50 µL of 2 M H ₂ SO ₄ , and the plate is read using a multi-well spectrophotometer at 490 nm. The inhibition rate (%) is calculated using the following equation: [1-(A ₄₉₀ treated / A ₄₉₀ control)] × 100%. IC ₅₀ values are determined from the results of at least three independent tests and calculated by Logit method.

Solubility Information

A DRUG SCREENING EXPERT

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 83.33 mg/mL (294.2 mM), Sonication is recommended. Ethanol: < 1 mg/mL (insoluble or slightly soluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (7.06 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5306 mL	17.6529 mL	35.3057 mL
5 mM	0.7061 mL	3.5306 mL	7.0611 mL
10 mM	0.3531 mL	1.7653 mL	3.5306 mL
50 mM	0.0706 mL	0.3531 mL	0.7061 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

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