Guanosine

Cat. No.: HY-N0097

CAS No.: 118-00-3

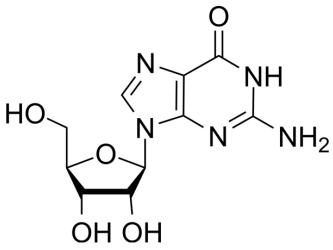
Molecular Formula: $C_{10}H_{13}N_5O_5$

Molecular Weight: 283.24

Target: Endogenous Metabolite; HSV

Pathway: Metabolic Enzyme/Protease; Anti-infection

Storage: 4°C, protect from light
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 75 mg/mL (264.79 mM)

H_2O : 1 mg/mL (3.53 mM; Need ultrasonic)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	3.5306 mL	17.6529 mL	35.3057 mL
5 mM	0.7061 mL	3.5306 mL	7.0612 mL
10 mM	0.3531 mL	1.7653 mL	3.5306 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 3.33 mg/mL (11.76 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (8.83 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (8.83 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Guanosine (DL-Guanosine) is a purine nucleoside comprising guanine attached to a ribose (ribofuranose) ring via a β-N9-glycosidic bond. Guanosine possesses anti-HSV activity.

IC_{50} & Target

Human Endogenous Metabolite

In Vitro

Guanosine can be phosphorylated to become guanosine monophosphate (GMP), cyclic guanosine monophosphate (cGMP), guanosine diphosphate (GDP), and guanosine triphosphate (GTP). These forms play important roles in various biochemical

processes such as synthesis of nucleic acids and proteins, photosynthesis, muscle contraction, and intracellular signal transduction (cGMP).

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Mol Immunol. 2019 Oct;114:226-232.
- Nat Commun. 2022 Oct 26;13(1):6350.
- Biomed Pharmacother. 2019 Oct;118:109305.
- Talanta. 2023 Sep 6, 125171.
- Molecules. 2019 May 3;24(9):1723.

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REFERENCES

[1]. De Clercq E1. Guanosine analogues as anti-herpesvirus agents. Nucleosides Nucleotides Nucleic Acids. 2000 Oct-Dec;19(10-12):1531-41.

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