Product Data Sheet

Guanosine 5'-triphosphate-5'-adenosine triammonium

Cat. No.:	HY-139101A
Molecular Formula:	$C_{20}H_{36}N_{13}O_{17}P_{3}$
Molecular Weight:	823.5
Target:	DNA/RNA Synthesis; Endogenous Metabolite
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro

MedChemExpress

$H_2O :\ge 125 \text{ mg/mL} (151.79 \text{ mM})$

* "≥" means soluble, but saturation unknown.

	Solvent Mass Concentration	1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	1.2143 mL	6.0716 mL	12.1433 mL
	5 mM	0.2429 mL	1.2143 mL	2.4287 mL
	10 mM	0.1214 mL	0.6072 mL	1.2143 mL

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

BIOLOGICAL ACTIVITY			
Description	Guanosine 5'-triphosphate-5'-adenosine (GpppA) triammonium, a 5' cap analog, can be used for RNA synthesis in vitro. Guanosine 5'-triphosphate-5'-adenosine triammonium is a fluorescent substrate analog ^{[1][2]} .		
IC ₅₀ & Target	Human Endogenous Metabolite		
In Vitro	Guanosine 5'-triphosphate-5'-adenosine (GpppA) triammonium labeled with pyrene at the 3'-O position of adenosine acts as an artificial substrate. Fluorescently labeled GpppA triammonium and GpppG analogs as potential substrates that represent a reasonable compromise between the structural complexity and requirements of the enzyme ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

REFERENCES

[1]. Renata Kasprzyk, et al. Direct High-Throughput Screening Assay for mRNA Cap Guanine-N7 Methyltransferase Activity. Chemistry. 2020 Sep 1;26(49):11266-11275.

[2]. Dennis Reichert, et al. Light-control of cap methylation and mRNA translation via genetic code expansion of Ecm1. Chem Sci. 2021 Feb 8;12(12):4383-4388.

Caution: Product has not been fully validated for medical applications. For research use only.

 Tel: 609-228-6898
 Fax: 609-228-5909
 E-mail: tech@MedChemExpress.com

 Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA