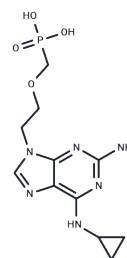


cPrPMEDAP

Chemical Properties

CAS No. :	182798-83-0
Formula:	C ₁₁ H ₁₇ N ₆ O ₄ P
Molecular Weight:	328.269
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	cPrPMEDAP, an intermediate metabolite of GS-9219, acts as a prodrug for the guanine nucleotide analog PMEG, demonstrating antiproliferative activity. It is negatively charged at physiological pH, resulting in poor skin permeability.
In vitro	cPrPMEDAP displays antiproliferative properties against SiHa cells (HPV-transformed cervical carcinoma cell lines) with an EC ₅₀ value of 290 nM[1]. Its counterpart, PMEG, generates an active phosphorylated metabolite, PMEG diphosphate (PMEG-DP), which effectively inhibits growth in various transformed cell lines by strongly suppressing nuclear DNA polymerases α , δ , and ϵ , thus hindering DNA synthesis and/or repair. Although PMEG demonstrates antiproliferative efficacy in animal models, its application as an antiproliferative agent is constrained by its limited cellular uptake and pronounced toxicity. cPrPMEDAP, on the other hand, exhibits comparable in vitro antiproliferative effectiveness and diminished toxicity in vivo. However, similar to PMEG, it faces challenges with skin permeability due to its negative charge at physiological pH[1].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0463 mL	15.2314 mL	30.4627 mL
5 mM	0.6093 mL	3.0463 mL	6.0925 mL
10 mM	0.3046 mL	1.5231 mL	3.0463 mL
50 mM	0.0609 mL	0.3046 mL	0.6093 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.

Reference

Compton ML, et al. 9-(2-Phosphonylmethoxyethyl)-N6-cyclopropyl-2,6-diaminopurine (cpr-PMEDAP) as a prodrug of 9-(2-phosphonylmethoxyethyl)guanine (PMEG). *Biochem Pharmacol.* 1999;58(4):709-714.

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