

Product Data Sheet

Product Name: Ganciclovir Triphosphate

Cat. No.: GN20172

Chemical Properties

Purity	>95.00%	Extinction Coefficient	13,600 Lmol ⁻¹ cm ⁻¹ at 252 nm
Formula	C ₉ H ₁₆ N ₅ O ₁₃ P ₃ (free acid)	M.Wt	495.20 g/mole (free acid)
Salt Form	Li+	Concentration	
Buffer	H ₂ O	Storage	-20°C or below
Synonyms	9-(1,3-Dihydroxy-2-propoxymethyl)guanine-5'-Triphosphate, GCV-TP	Backbone	5'-Triphosphate
Base Analog	Guanosine	Sugar Type	RNA
Nucleotide Category	Non-nucleotide		
Applications	Aptamers		

Background

Ganciclovir is a synthetic acyclic-DNA guanine derivative, where the C2' carbon bond is absent. Ganciclovir Triphosphate (ganciclovir-TP, GCV-TP), the active metabolite of ganciclovir, is thought to disrupt viral DNA synthesis by competitive inhibition of viral DNA polymerases and by incorporation into viral DNA, to result in eventual termination of viral DNA elongation. Ganciclovir was first published as 2'-Nor-2'-deoxyguanosine (2'NDG), with noted effectiveness in treating acute herpes simplex infections in mice. Recently it has been studied as an Epstein-Barr Virus treatment, as well as a prostate cancer, human cytomegalovirus (HCMV) retinitis and CMV antigeemia preemptive treatment. The triphosphorylated form (GCV-TP) is an important control in this research.

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

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