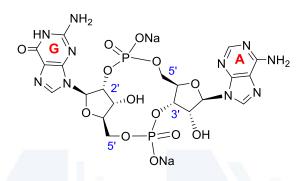


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Certificate of Analysis



Product Name:	2',3'-cGAMP Disodium
Synonym:	2',3'-cyclic GMP-AMP Sodium Salt
CAS No:	1441190-66-4
Prod. No:	CT-CGMAP
Lot No:	02
Batch Empirical Formula Batch Empirical Wt.	C ₂₀ H ₂₂ N ₁₀ O ₁₃ P ₂ ·2Na 718.4
Solubility	Soluble in Water (>35.9mg/ml, >50 mM)
Storage	Store at 0 °C (short term), -20 °C (long term), dark, and desiccated

Appearance	Snow-white crystalline powder
Quality Control	MS: [√] HPLC: [√] ¹ H-NMR: [√] ³¹ P-NMR: [√]
Chemical Purity	99.5% (HPLC)