

NTP Solutions Specifications



	ATP solution Sodium Salt	CTP solution Sodium Salt	GTP solution Sodium Salt	UTP solution Sodium Salt
Nomenclature	Adenosine 5'-triphosphate	Cytidine 5'-triphosphate	Guanosine 5'-triphosphate	Uridine 5'-triphosphate
CAS Number	987-65-5	36051-68-0	36051-31-7	19817-92-6
Formula (Anion)	C ₁₀ H ₁₃ N ₅ O ₁₃ P ₃ (Anion)	C ₉ H ₁₃ N ₃ O ₁₄ P ₃	C ₁₀ H ₁₃ N ₅ O ₁₄ P ₃	C ₉ H ₁₂ N ₂ O ₁₅ P ₃
Formula Weight (g x mol⁻¹)	504.16	480.13	520.15	481.11
Storage	at -20 °C	at -20 °C	at -20 °C	at -20 °C
Stability	24 months	24 months	24 months	24 months
Appearance	clear colorless solution	clear colorless solution	clear colorless solution	clear colorless solution
Concentration (22°C, pH 7.0)	100 mM ± 2% (A _{259 nm} , ε = 15.1 l x mmol ⁻¹ x cm ⁻¹)	100 mM ± 2% (A _{271 nm} , ε = 8.9 l x mmol ⁻¹ x cm ⁻¹)	100 mM ± 2% (A _{252 nm} , ε = 14.2 l x mmol ⁻¹ x cm ⁻¹)	100 mM ± 2% (A _{262 nm} , ε = 9.8 l x mmol ⁻¹ x cm ⁻¹)
A_{250 nm} / A_{260 nm} (22 °C, pH 7.0)	0.78 ± 0.03	0.82 ± 0.03	1.15 ± 0.04	0.74 ± 0.03
A_{280 nm} / A_{260 nm} (22 °C, pH 7.0)	0.15 ± 0.02	0.97 ± 0.03	0.67 ± 0.03	0.38 ± 0.02
pH (22°C)	8.0 ± 0.2	8.0 ± 0.2	8.0 ± 0.2	8.0 ± 0.2
NTP (HPLC area)	≥ 99.0%	≥ 99.0%	≥ 99.0%	≥ 99.0%
NDP (HPLC area)	≤ 1.0%	≤ 1.0%	≤ 1.0%	≤ 1.0%
in vitro Transcription (T7 RNA polymerase, 1423 bp template)	visible RNA fragment after 5 min incubation	visible RNA fragment after 5 min incubation	visible RNA fragment after 5 min incubation	visible RNA fragment after 5 min incubation
DNases, RNases, Nicking Activity	not detectable	not detectable	not detectable	not detectable
Proteases	not detectable	not detectable	not detectable	not detectable