

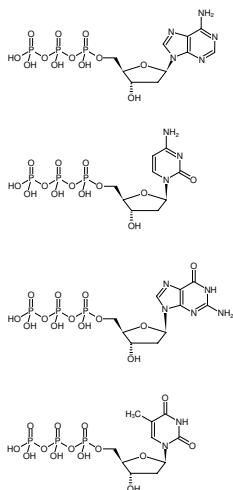


dNTP Bundle

dATP, dCTP, dGTP and dUTP 100 mM solutions

2'-Deoxyadenosine-5'-triphosphate, Sodium salt; 2'-Deoxycytidine-5'-triphosphate, Sodium salt; 2'-Deoxyguanosine-5'-triphosphate, Sodium salt; 2'-Deoxythymidine-5'-triphosphate, Sodium salt

| Cat. No. | Amount |
|----------|--------------------------|
| NU-1005S | 4 x 200 µl (4 x 20 µmol) |
| NU-1005L | 4 x 1 ml (4 x 100 µmol) |



Structural formula of dNTP Bundle

For general laboratory use.

Shipping: shipped on gel packs

Storage Conditions: store at -20 °C

Short term exposure (up to 1 week cumulative) to ambient temperature possible.

Shelf Life: 12 months after date of delivery

Molecular Formula:

dATP: C₁₀H₁₆N₅O₁₂P₃ (free acid)

dCTP: C₉H₁₆N₃O₁₃P₃ (free acid)

dGTP: C₁₀H₁₆N₅O₁₃P₃ (free acid)

dTTP: C₁₀H₁₇N₂O₁₄P₃ (free acid)

Molecular Weight:

dATP: 491.18 g/mol (free acid)

dCTP: 467.15 g/mol (free acid)

dGTP: 507.18 g/mol (free acid)

dTTP: 482.17 g/mol (free acid)

Purity: ≥ 99 % (HPLC)

Form: clear aqueous solution

Concentration: 100 mM - 110 mM

pH: 8.5 ± 0.2 (22 °C)

Spectroscopic Properties: dATP: λ_{max} 259 nm, ε 15.1 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.0)

dCTP: λ_{max} 271 nm, ε 8.9 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.0)

dGTP: λ_{max} 252 nm, ε 14.2 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.0)

dTTP: λ_{max} 267 nm, ε 9.5 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.0)

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Description:

dNTP Bundle contains four separate solutions of ultrapure dATP, dCTP, dGTP and dTTP supplied as clear aqueous solutions (pH 8.5).

| dNTP | Cat. No. | cap color |
|------|----------|-----------|
| dATP | NU-1001 | red |
| dCTP | NU-1002 | blue |
| dGTP | NU-1003 | yellow |
| dTTP | NU-1004 | green |

Quality Control Specifications:

Low Copy Long Range PCR (18 kb, lambda DNA, template dilution series): PCR fragment with 50 pg of template or less

RT-PCR (749 bp fragment, human GAPDH gene, template dilution series): PCR fragment with 10 pg of template or less

Contamination with bacterial or human DNA: not detectable

DNases, RNases, Nicking Activity: not detectable

Proteases: not detectable

Selected References:Erlich *et al.* (1988) Primer-directed enzymatic amplification of DNA with a thermostable DNA polymerase. *Science* **29** (239):487.Holland *et al.* (1991) Detection of specific polymerase chain reaction product by utilizing the 5'→3' exonuclease activity of *Thermus aquaticus* DNA polymerase. *Proc. Natl. Acad. Sci. USA* **88** (16):7276.Sanger *et al.* (1977) DNA sequencing with chain-terminating inhibitors. *Proc. Natl. Acad. Sci. USA* **74**:5463.