



dNTP Bundle

4 x 100 mM (dATP, dCTP, dGTP, dTTP)

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
DBUND_250UL	4 x 250 µl (4 x 25 µmol)
DBUND_1ML	4 x 1 ml (4 x 100 µmol)

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:

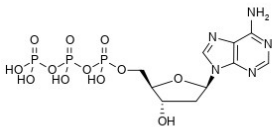
dATP: λ_{\max} 259 nm, ϵ 15.4 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.0)

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

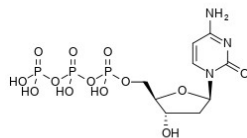
dGTP: λ_{\max} 252 nm, ϵ 13.7 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.0)

dTTP: λ_{\max} 262 nm, ϵ 9.6 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.0)

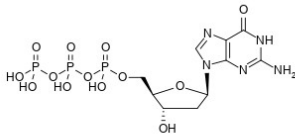
dATP



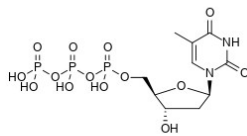
dCTP



dGTP



dTTP



For *in vitro* use only!

Shipping: shipped on blue ice

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)

**dNTP Bundle**

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

Description:

dNTP Bundle, PCR Grade contains four separate tubes of dATP, dCTP, dGTP and dTTP supplied as ultrapure aqueous solutions and suitable for all molecular biology applications including PCR/qPCR, reverse transcription, DNA labeling and DNA sequencing.

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:

Erllich *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.