DATA SHEET

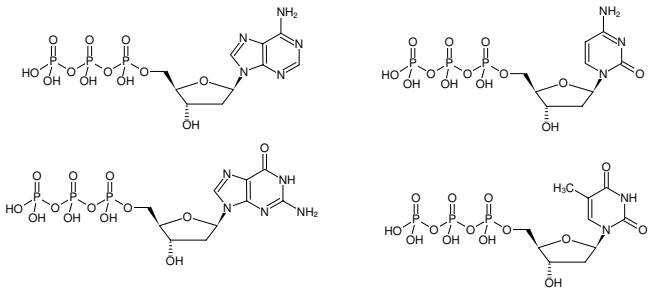
Jena Bioscience

dNTP Mix - 10 mM Solution

Equimolar Mix of 10 mM dATP, dCTP, dGTP and 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
NU-1006S	1 ml
NU-1006L	5x 1 ml



Structural formula of dNTP Mix - 10 mM Solution

For *in vitro* use only!

Shipping: shipped on gel packs

Storage Conditions: store at -20 °C

Short term exposure (up to 1 week cumulative) to ambient temperature possible. If stored as recommended, Jena Bioscience guarantees optimal performance of this product for 12 months after date of delivery.

Shelf Life: 12 months

Molecular Formula:
dATP: $C_{10}H_{16}N_5O_{12}P_3$ (free acid)
dCTP: $C_9H_{16}N_3O_{13}P_3$ (free acid)
dGTP: $C_{10}H_{16}N_5O_{13}P_3$ (free acid)
dTTP: $C_{10}H_{17}N_2O_{14}P_3$ (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

pH: 8.5 ±0.2 (22 °C)

Applications:
For standard PCR applications a final concentration of 200 µM each dNTP is recommended.

Description:
dNTP Mix is an equimolar mixture of ultrapure dATP, dCTP, dGTP, and dTTP supplied as clear aqueous solution (pH 8.5).

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.