

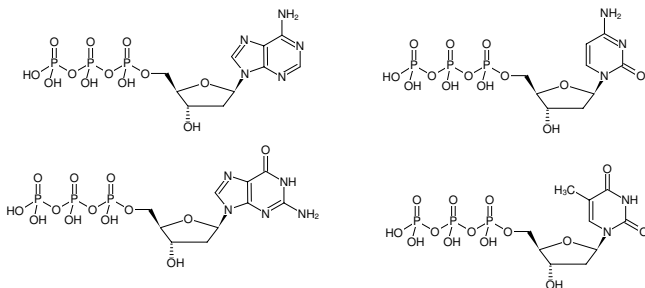


dNTP Mix - 25 mM Solution

Equimolar Mix of 25 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-1023S | 1 ml |
| NU-1023L | 5x 1 ml |



Structural formula of dNTP Mix - 25 mM Solution

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. 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: 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

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

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

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.