

dNTP Mix / 25 mM

Premix of 25 mM dATP, dCTP, dGTP and dTTP

Cat. No.	Amount
NU-1023S	200 μ l
NU-1023L	1 ml

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C, short term (up to one week) exposure to ambient temperature possible

Application for PCR

For standard PCR applications a final concentration of 200 μ M each dNTP is recommended.

Form

clear aqueous solution, pH 8.5 +/-0.1 (4°C)

Purity

>99%

Quality Control Specifications

18 kb long range PCR (template dilution series): suitable
contamination with bacterial and human DNA: not detectable
activity of DNase, Protease or Phosphatase: not detectable

Description

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

dATP

2'-Deoxyadenosine 5'-triphosphate, sodium salt
Molecular formula: C₁₀H₁₃N₅O₁₂P₃ (Anion)
Molecular weight: 488.16 (Anion)

dCTP

2'-Deoxycytidine 5'-triphosphate, sodium salt
Molecular formula: C₉H₁₃N₃O₁₃P₃ (Anion)
Molecular weight: 464.13 (Anion)

dGTP

2'-Deoxyguanosine 5'-triphosphate, sodium salt
Molecular formula: C₁₀H₁₃N₅O₁₃P₃ (Anion)
Molecular weight: 504.16 (Anion)

dTTP

2'-Deoxythymidine 5'-triphosphate, sodium salt
Molecular formula: C₁₀H₁₄N₂O₁₄P₃ (Anion)
Molecular weight: 479.14 (Anion)

Selected References:

Erlich et al. (1988) Primer-directed enzymatic amplification of DNA with a thermostable DNA polymerase. *Science* **29** (239):487.
Gelfand 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.