



## dNTP Bundle

dATP, dCTP, dGTP and dTTP 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

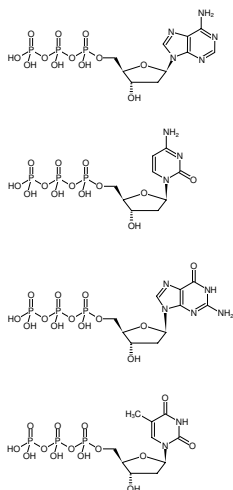
Cat. No.	Amount
NU-1005S	4 x 200 µl (4 x 20 µmol)
NU-1005L	4 x 1 ml (4 x 100 µmol)

(Tris-HCl pH 7.0)

dCTP:  $\lambda_{\max}$  271 nm,  $\epsilon$  8.9 L mmol<sup>-1</sup> cm<sup>-1</sup> (Tris-HCl pH 7.0)

dGTP:  $\lambda_{\max}$  252 nm,  $\epsilon$  14.2 L mmol<sup>-1</sup> cm<sup>-1</sup> (Tris-HCl pH 7.0)

dTTP:  $\lambda_{\max}$  267 nm,  $\epsilon$  9.5 L mmol<sup>-1</sup> cm<sup>-1</sup> (Tris-HCl pH 7.0)



Structural formula of dNTP Bundle

**For general laboratory use.**

**Shipping:** shipped on gel packs

**Storage Conditions:** store at -20 °C

**Shelf Life:** 12 months after date of delivery

**Molecular Formula:**

dATP: C<sub>10</sub>H<sub>16</sub>N<sub>5</sub>O<sub>12</sub>P<sub>3</sub> (free acid)

dCTP: C<sub>9</sub>H<sub>16</sub>N<sub>3</sub>O<sub>13</sub>P<sub>3</sub> (free acid)

dGTP: C<sub>10</sub>H<sub>16</sub>N<sub>5</sub>O<sub>13</sub>P<sub>3</sub> (free acid)

dTTP: C<sub>10</sub>H<sub>17</sub>N<sub>2</sub>O<sub>14</sub>P<sub>3</sub> (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:  $\lambda_{\max}$  259 nm,  $\epsilon$  15.1 L mmol<sup>-1</sup> cm<sup>-1</sup>



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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.