

## dNTP Mix incl. dUTP

Premix of 10 mM dATP, dCTP, dGTP and 20 mM dUTP

Cat. No.	Amount
NU-1020S	200 $\mu$ l
NU-1020L	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

### Form

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

### Purity

>99%

### Quality Control Specifications

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

### Description

dNTP Mix incl. dUTP is a mixture of 10 mM ultrapure dATP, dCTP, and dGTP, and 20 mM dUTP supplied as clear aqueous solution (pH 8.5).

dUTP can be used in place of dTTP in PCR and RT-PCR protocols to prevent carry-over contaminations from previous amplifications.

### dATP

2'-Deoxyadenosine 5'-triphosphate, sodium salt  
Molecular formula: C<sub>10</sub>H<sub>13</sub>N<sub>5</sub>O<sub>12</sub>P<sub>3</sub> (Anion)  
Molecular weight: 488.16 (Anion)

### dCTP

2'-Deoxycytidine 5'-triphosphate, sodium salt  
Molecular formula: C<sub>9</sub>H<sub>13</sub>N<sub>3</sub>O<sub>13</sub>P<sub>3</sub> (Anion)  
Molecular weight: 464.13 (Anion)

### dGTP

2'-Deoxyguanosine 5'-triphosphate, sodium salt  
Molecular formula: C<sub>10</sub>H<sub>13</sub>N<sub>5</sub>O<sub>13</sub>P<sub>3</sub> (Anion)  
Molecular weight: 504.16 (Anion)

### dUTP

2'-Deoxyuridine 5'-triphosphate, sodium salt  
Molecular formula: C<sub>9</sub>H<sub>12</sub>N<sub>2</sub>O<sub>14</sub>P<sub>3</sub> (Anion)  
Molecular weight: 465.12 (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.