

## dNTPs NZYSet

### Catalogue number:

MB08701, 100 mM, 4 × 250 µL

### Description

dNTP NZYSet consists in a series of separate ready-to-use molecular grade dNTP solutions of dATP, dGTP, dCTP, and dTTP, at pH 8.5 (at 22 °C) and a 100 mM concentration. The dNTPs are supplied in a sodium salt solution and may be used in DNA polymerization reactions, DNA labelling and sequencing processes.

### Features

- ✓ Ultra-pure: >99% triphosphate by HPLC
- ✓ Extended shelf-life of 24 months at -20 °C

### dNTPs Specifications

Product	dATP	dCTP	dGTP	dTTP
	100 mM, Sodium salt solution	100 mM, Sodium salt solution	100 mM, Sodium salt solution	100 mM, Sodium salt solution
<b>Nomenclature</b>	2'-deoxyadenosine-5'-triphosphate	2'-deoxycytidine-5'-triphosphate	2'-deoxyguanosine-5'-triphosphate	2'-deoxythymidine-5'-triphosphate
<b>Formula</b>	C <sub>10</sub> H <sub>13</sub> N <sub>5</sub> O <sub>12</sub> P <sub>3</sub>	C <sub>9</sub> H <sub>13</sub> N <sub>3</sub> O <sub>13</sub> P <sub>3</sub>	C <sub>10</sub> H <sub>13</sub> N <sub>5</sub> O <sub>13</sub> P <sub>3</sub>	C <sub>10</sub> H <sub>14</sub> N <sub>2</sub> O <sub>14</sub> P <sub>3</sub>
<b>Molecular weight</b>	488.16 g mol <sup>-1</sup>	464.13 g mol <sup>-1</sup>	504.16 g mol <sup>-1</sup>	465.14 g mol <sup>-1</sup>
<b>λ<sub>max</sub> pH @ 7.0</b>	259 nm	271 nm	252 nm	267 nm
<b>ε at λ<sub>max</sub> pH @ 7.0</b>	15.1 E x mmol <sup>-1</sup> .cm <sup>-1</sup>	8.9 E x mmol <sup>-1</sup> .cm <sup>-1</sup>	14.2 E x mmol <sup>-1</sup> .cm <sup>-1</sup>	9.5 E x mmol <sup>-1</sup> .cm <sup>-1</sup>
<b>A<sub>250</sub>/A<sub>260</sub></b>	0.78 ± 0.02	0.82 ± 0.02	1.15 ± 0.03	0.64 ± 0.02
<b>A<sub>280</sub>/A<sub>260</sub></b>	0.15 ± 0.02	0.97 ± 0.02	0.67 ± 0.02	0.74 ± 0.02
<b>Concentration</b>	100 mM ± 2%	100 mM ± 2%	100 mM ± 2%	100 mM ± 2%
<b>Appearance</b>	clear colourless	clear colourless	clear colourless	clear colourless
<b>pH at 22 °C</b>	8.5	8.5	8.5	8.5
<b>dNTP (HPLC Area)</b>	≥ 99%	≥ 99%	≥ 99%	≥ 99%
<b>dNDP (HPLC Area)</b>	<0.9%	<0.9%	<0.9%	<0.9%
<b>dNMP (HPLC Area)</b>	<0.5%	<0.5%	<0.5%	<0.5%
<b>Dnases, RNases, Nicking activity</b>	Negative	Negative	Negative	Negative
<b>Proteases</b>	Negative	Negative	Negative	Negative
<b>Storage</b>	At -20 °C	At -20 °C	At -20 °C	At -20 °C
<b>Stability</b>	24 months	24 months	24 months	24 months

- ✓ Free from PCR inhibitors
- ✓ DNase, RNase and Nickase free

### Applications

- ✓ Standard and long-range PCR
- ✓ cDNA synthesis
- ✓ Real-time PCR
- ✓ Microarrays
- ✓ DNA sequencing
- ✓ DNA labelling

### Storage conditions

dNTP NZYSet can be stored for 24 months at -20 °C. Avoid multiple freeze/thaw cycles. For long-term storage, aliquoting is highly recommended.

### Shipping conditions

4 °C to dry ice.

V2201

## Certificate Analysis

Assay	Result
DNases, RNases, Nicking activity	Pass
Proteases activity	Pass
Contamination with human DNA (each component separately)	Pass (Not detectable)
Contamination with bacterial DNA (each component separately)	Pass (Not detectable)
Functional assay	Pass

Approved by:



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