

dNTP Mix

A mixture of dATP, dGTP, dCTP and dTTP

F-560

dNTP Mix	Size	Amount of each nucleotide	Concentration of each nucleotide
F-560S	100 µl (100 reactions)	1 µmol	10 mM
F-560L	500 µl (500 reactions)	5 µmol	10 mM
F-560XL	1000 µl (1000 reactions)	5 µmol	25 mM

Store at -20°C

Stable for one year from the assay date

The dNTP Mix is a premixed ready-to-use solution consisting of the following compounds: dATP, dGTP, dCTP and dTTP. The deoxynucleosidetriphosphates are dissolved in water, pH 7.5.

dATP, 2'-DEOXYADENOSINE 5'-TRIPHOSPHATE, minimal diphosphate, sodium salt
 $C_{10}H_{12}N_5O_{12}P_3Na_4$ F.W. 579.2

dGTP, 2'-DEOXYGUANOSINE 5'-TRIPHOSPHATE, minimal diphosphate, sodium salt
 $C_{10}H_{12}N_5O_{13}P_3Na_4$ F.W. 595.1

dCTP, 2'-DEOXYCYTIDINE 5'-TRIPHOSPHATE, minimal diphosphate, sodium salt
 $C_9H_{12}N_3O_{13}P_3Na_4$ F.W. 555.1

dTTP, 2'-DEOXYTHYMIDINE 5'-TRIPHOSPHATE, minimal diphosphate, sodium salt
 $C_{10}H_{13}N_2O_{14}P_3Na_4$ F.W. 570.1

Spectral analysis of dNTPs

	Spectral analysis 250/260 Finnzymes specifications	Spectral analysis 280/260 Finnzymes specifications	Spectral analysis 290/260 Finnzymes specifications	Spectral analysis λ Max
dATP ¹	0.80 ± 0.03	0.12 ± 0.02		260 nm
dGTP ¹	1.18 ± 0.04	0.67 ± 0.03	0.28 ± 0.03	253 nm
dCTP ²	0.45 ± 0.03	2.10 ± 0.15	1.60 ± 0.10	280 nm
dTTP ¹	0.65 ± 0.03	0.73 ± 0.03		267 nm

1) Readings measured in 20 mM potassium phosphate (pH 7.5)

2) Readings measured in 0.01 N HCl (pH 2.0)

Chromatographic analysis

Each of the triphosphates was digested with alkaline phosphatase. The digests were chromatographed on a C-18 column with a gradient of 0 % to 20 % acetonitrile. No other nucleosides were detected.

CENTRIFUGE TUBE BEFORE OPENING TO IMPROVE RECOVERY OF CONTENTS.



Guidelines how to obtain desired dNTP concentration:

Desired dNTP conc.	Volume of dNTP Mix to be pipetted in <u>50 µl</u> Conc. of each dNTP: <u>10 mM</u>	Volume of dNTP Mix to be pipetted in <u>100 µl</u> Conc. of each dNTP: <u>10 mM</u>
50 µM each dNTP	0.25 µl	0.50 µl
100 µM each dNTP	0.50 µl	1.00 µl
150 µM each dNTP	0.75 µl	1.50 µl
200 µM each dNTP	1.00 µl	2.00 µl

Desired dNTP conc.	Volume of dNTP Mix to be pipetted in <u>50 µl</u> Conc. of each dNTP: <u>25 mM</u>	Volume of dNTP Mix to be pipetted in <u>100 µl</u> Conc. of each dNTP: <u>25 mM</u>
50 µM each dNTP	0.1 µl	0.2 µl
100 µM each dNTP	0.2 µl	0.4 µl
150 µM each dNTP	0.3 µl	0.6 µl
200 µM each dNTP	0.4 µl	0.8 µl

It is advisable to use master mixes in order to maintain pipetting accuracy.

NOTE: Pay careful attention to the concentration of each nucleotide of the solution that you are using!

WARRANTY:

Finnzymes Oy warrants that this product will meet the specifications stated on the technical data section of this data sheet, and Finnzymes Oy agrees to replace the product free of charge if the product does not conform to the specifications. Notice for replacement must be given within 60 days.

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- That this remedy is in lieu of all other remedies or claims for damages, consequential or otherwise, which the buyer may have against Finnzymes Oy.

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