



BIOTOOLS dNTP Mix (25 mM final concentration) Premixed Deoxynucleotide Triphosphate Solution

STORE AT -20°C

Description

Biotoools Deoxynucleotide Triphosphate Solution (dNTP Mix) has been designed to facilitate routine laboratory work. This ready-to-use solution can be employed in different applications where deoxynucleotide triphosphates are necessary for the synthesis of new DNA strands (i.e. DNA amplification, sequencing, primer extension, multiplex PCR, RT-PCR, etc.). The dNTPs in this solution are provided at 25 mM final concentration in ultrapure water pH 7.0. The premixing of the four dNTPs (dATP, dCTP, dGTP and dTTP) at equal concentrations, 6.25 mM each, prevents problems of misincorporation, which could occur should an unbalanced dNTP mix is used.

The recommended concentration for amplification reactions is about 50-500 μM each dNTP, being the most commonly used dNTP concentration 200 μM . An increase in the concentration of dNTPs should be accompanied by an increase of the concentration of MgCl_2 , because high concentrations of dNTPs behave as potent Mg^{2+} chelating agent reducing therefore the availability of free Mg^{2+} for polymerase activity.

For amplification of DNA fragments less than 3 Kb in length do not use concentrations higher than 200 μM (each). Long amplifications, on the other hand, require higher concentrations of dNTPs, namely in the range 300-500 μM (each), as well as special DNA polymerase combinations.

Each Lot of the Deoxynucleotide Triphosphate Solution is tested under strict conditions to ensure Lot quality and Lot-to-Lot reproducibility.

BIOTOOLS recommends the following dNTP volumes for most amplification applications (so that final concentration for each dNTP is 200 μM):

Final Reaction Volume	Recommended dNTP Mix (10 mM final conc) Volume
50 μl rxn	1.6 μl (200 μM each)
20 μl rxn	0.64 μl (200 μM each)

In order to avoid pipetting errors when using small volumes, we recommend the use of dNTP Mix, 10 mM final concentration. Also the dNTPs are available individually at 10 mM or 100 mM concentration.

Storage Conditions

Store at -20°C in a constant temperature freezer. Do not freeze/thaw repeatedly, for a frequent use aliquot vial content.

Order Information

<u>Cat. No.</u>	<u>Producto</u>
20.031	dNTP Mix- Desoxynucleotides Triphosphate Solution, 10 mM final concentration (250 µl)
20.037	dNTP Mix- Desoxynucleotides Triphosphate Solution, 10 mM final concentration (2 x 250 µl)
20.038	dNTP Mix- Desoxynucleotides Triphosphate Solution, 10 mM final concentration (4 x 250 µl)
20.039	dNTP Mix- Desoxynucleotides Triphosphate Solution, 25 mM final concentration (250 µl)
20.131	dATP, 10 mM (250 µl)
20.132	dCTP, 10 mM (250 µl)
20.133	dGTP, 10 mM (250 µl)
20.134	dTTP, 10 mM (250 µl)
20.135	dATP, 100 mM (250 µl)
20.136	dCTP, 100 mM (250 µl)
20.137	dGTP, 100 mM (250 µl)
20.138	dTTP, 100 mM (250 µl)

Notice to buyers/users:

Some of the applications which may be performed with this product are covered by applicable patents in certain countries. The purchase of this product does not include or provide a license to perform patented applications. Users may be required to obtain a license depending on the country and/or application.

Ed. 04 – September 08