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dNTP Set and Mixes

Store at -20°C

Cat. No.	Description	Concentration	Quantity
G050	dNTP Set (dATP, dCTP, dGTP, dTTP)	4 x 100 mM	4 x 0.25 ml
G010	dNTP Mix (dATP, dCTP, dGTP, dTTP)	10 mM each	250 µl
G128	dNTP Mix (dATP, dCTP, dGTP, dTTP)	10 mM each	500 µl
G129	dNTP Mix (dATP, dCTP, dGTP, dTTP)	10 mM each	1 ml

Product Description

dNTP Set

The set consists of 100 mM aqueous solutions of dATP, dCTP, dGTP and dTTP each supplied in a separate vial. Since the nucleotides are provided individually, the dNTP set offers maximum flexibility in the preparation of reaction mixes for different applications.

dNTP Mix

The dNTP mix is a ready-to-use aqueous solution containing dATP, dCTP, dGTP and dTTP, each at a final concentration of 10 mM. The mix reduces the number of pipetting steps therefore minimizing the risk of errors.

Applications

For use in PCR, long-range PCR, RT-PCR, cDNA synthesis, primer extension, DNA sequencing and DNA labelling.

General characteristics

dATP $C_{10}H_{13}N_5O_{12}P_3Na_3$ MW= 557.2 , λ_{max} = 259 nm , ε = 15.2 x 10^3 $M^{-1}cm^{-1}$ at pH 7.0
dCTP $C_9H_{13}N_3O_{13}P_3Na_3$ MW=533.1 , λ_{max} = 271 nm , ε = 9.3 x 10^3 $M^{-1}cm^{-1}$ at pH 7.0
dGTP $C_{10}H_{13}N_{15}O_{13}P_3Na_3$ MW=573.2 , λ_{max} = 253 nm , ε = 13.7 x 10^3 $M^{-1}cm^{-1}$ at pH 7.0
dTTP $C_{10}H_{14}N_2O_{14}P_3Na_3$ MW 548.1 , λ_{max} = 267 nm , ε = 9.6 x 10^3 $M^{-1}cm^{-1}$ at pH 7.0

Molecular biology grade

Functionally tested in PCR with Taq and Pfu DNA Polymerases. Purity of each component >98% by HPLC. Endo-, exodeoxyribonuclease and phosphatase free.

Preparation of dNTP mixtures from dNTP set:

Final concentration of dNTP mix	Volume of dNTP				Volume of nucleasefree water	Total volume of dNTP mix
	dATP	dGTP	dCTP	dTTP		
2 mM each	10 µl 100 µl 250 µl	" " "	" " "	" " "	460 µl 4.6 ml 11.5 ml	500 µl 5 ml 12.5 ml
10 mM each	10 µl 100 µl 250 µl	" " "	" " "	" " "	60 µl 600 µl 1.5 ml	100 µl 1 ml 2.5 ml
25 mM each	10 µl 100 µl 250 µl	" " "	" " "	" " "	- - -	40 µl 400 µl 1 ml

Preparation of reaction volumes with dNTP Mix:

20 µl final reaction volume	
Final dNTP concentration	**Final dNTP volume**
0.2 mM	0.4 µl
0.5 mM	1 µl
1.0 mM	2 µl
1.5 mM	3 µl

25 µl final reaction volume	
Final dNTP concentration	**Final dNTP volume**
0.2 mM	0.5 µl
0.5 mM	1.25 µl
1.0 mM	2.5 µl
1.5 mM	3.75 µl

For laboratory research only. Not for clinical applications.
For technical questions, please email us at technical@abmgood.com
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