

Deoxyribonucleoside Triphosphate (dNTP) Solutions

2'-Fluoronucleoside- 5'-Triphosphate Solutions

Cat. Nos. D08104, D5910(A,C,G,T,4), D1905U, R2F110C, and R2F110U

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1. Introduction

Epicentre's 2'-Deoxyribonucleoside-5'-triphosphates (dNTPs) and 2'-Fluoronucleoside-5'-Triphosphates, 2'-Fluoro-dCTP (2'-F-dCTP), and 2'-Fluoro-dUTP (2'-F-dUTP) Solutions meet strict spectrophotometric criteria and are rigorously tested in functional assays with Epicentre's DNA polymerases. dNTP Solutions are available as a single, premixed solution containing dATP, dCTP, dGTP, and dTTP, or as separate stock solutions of the individual dNTPs. 2'-F-dUTP and 2'-F-dCTP are efficiently incorporated into "RNA" transcripts, *in vitro*, by Epicentre's T7 R&DNA™ Polymerase. Characteristics of the individual nucleotide solutions are described in Part 3.

2. Product Specifications

Storage: Store only at -20°C in a freezer without a defrost cycle.

Storage Solution: dNTP solutions are provided in sterile deionized water and adjusted to pH 7.0 with NaOH.

3. Kit Contents

Cat. #	Concentration	Quantity
Premixed dNTP Solutions		
D08104	2.5 mM each	10 µmol
D59104	25 mM each	10 µmol
dATP Solution		
D5910A	100 mM	10 µmol
dCTP Solution		
D5910C	100 mM	10 µmol
dGTP Solution		
D5910G	100 mM	10 µmol
dTTP Solution		
D5910T	100 mM	10 µmol
dUTP Solution		
D1905U	20 mM	5 µmol
2'-Fluoro-dCTP Solution		
R2F110C	50 mM	1 µmol
2'-Fluoro-dUTP Solution		
R2F110U	50 mM	1 µmol

4. Characteristics of Nucleotide Solutions

dATP (2'-Deoxyadenosine-5'-triphosphate)

Formula (free acid)..... $C_{10}H_{16}N_5O_{12}P_3$

Formula weight.....491

$A_{250}/A_{260} = 0.80$ $A_{280}/A_{260} = 0.15$

dCTP (2'-Deoxycytidine-5'-triphosphate)

Formula (free acid)..... $C_9H_{16}N_3O_{13}P_3$

Formula weight.....467

$A_{250}/A_{260} = 0.84$ $A_{280}/A_{260} = 0.98$

dGTP (2'-Deoxyguanosine-5'-triphosphate)

Formula (free acid)..... $C_{10}H_{16}N_5O_{13}P_3$

Formula weight.....507

$A_{250}/A_{260} = 1.15$ $A_{280}/A_{260} = 0.66$

dTTP (2'-Deoxythymidine-5'-triphosphate)

Formula (free acid)..... $C_{10}H_{17}N_2O_{14}P_3$

Formula weight.....482

$A_{250}/A_{260} = 0.65$ $A_{280}/A_{260} = 0.71$

dUTP (2'-Deoxyuridine-5'-triphosphate)

Formula (free acid)..... $C_9H_{15}N_2O_{14}P_3$

Formula weight.....468

$A_{250}/A_{260} = 0.75$ $A_{280}/A_{260} = 0.35$

2'-Fluoro-dCTP

Formula (Li salt) $C_9H_{11}N_3O_{13}FP_3Li_4$

Formula weight.....509

Purity>90%

2'-Fluoro-dUTP

Formula (Li salt) $C_9H_{10}N_2O_{14}FP_3Li_4$

Formula weight.....510

Purity>90%

5. Related Products

MasterAmp™ AmpliTherm™ DNA Polymerase		
AT72250	5 U/μl	250 Units
MasterAmp™ AmpliTherm™ DNA Polymerase (Enzyme Only)		
AT72250N	5 U/μl	250 Units
MasterAmp™ Taq DNA Polymerase		
Q82100	5 U/μl	100 Units
Q82250	5 U/μl	250 Units
Q82500	5 U/μl	500 Units
Q8201K	5 U/μl	1,000 Units
Q8205K	5 U/μl	5,000 Units
MasterAmp™ Taq DNA Polymerase (Enzyme Only)		
Q82250N	5 U/μl	250 Units
MasterAmp™ Tff DNA Polymerase		
F72250	1 U/μl	250 Units
F72500	1 U/μl	500 Units
F7201K	1 U/μl	1,000 Units
F7205K	1 U/μl	5,000 Units
MasterAmp™ Tff DNA Polymerase (Enzyme Only)		
F72250N	1 U/μl	250 Units
MasterAmp™ Tth DNA Polymerase		
TTH72100	5 U/μl	100 Units
TTH72250	5 U/μl	250 Units
TTH72500	5 U/μl	500 Units
TTH7201K	5 U/μl	1,000 Units
TTH7205K	5 U/μl	5,000 Units
MasterAmp™ Tth DNA Polymerase (Enzyme Only)		
TTH7225N	5 U/μl	250 Units
T4 DNA Polymerase		
D0602H	5 U/μl	200 Units
D0605H	5 U/μl	500 Units
DNA Polymerase I, <i>E. coli</i>		
DP0810500	10 U/μl	500 Units
DP081025K	10 U/μl	2,500 Units
Klenow DNA Polymerase		
KL0810250	5 U/μl	250 Units
KL081001K	5 U/μl	1,000 Units

Exo-Minus Klenow DNA Polymerase

KL105000	5 U/μl	5,000 Units
KL080911K	10 U/μl	1,000 Units

RepliPHI™ Phi29 DNA Polymerase (enzyme only)

PP031010	1 μg/μl (1,000 U/μl)	10 μg (10,000 Units)
PP040110	0.1 μg/μl (100 U/μl)	10 μg (10,000 Units)

RepliPHI™ Phi29 Reagent Set (includes enzyme, buffer, dNTPs, DTT)

RH031110	Enzyme: 1 μg/μl (1,000 U/μl)	Enzyme: 10 μg (10,000 Units)
RH040210	Enzyme: 0.1 μg/μl (100 U/μl)	Enzyme: 10 μg (10,000 Units)

RepliPHI™ Phi29 Polymerase Dilution Buffer

RPB04041		1 ml
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T7 R&DNA™ Polymerase

D7P9201K	50 U/μl	1,000 Units
D7P9205K	50 U/μl	5,000 Units

Contents: T7 R&DNA™ Polymerase, 5X Reaction Buffer, 100 mM DTT.

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