

DATA SHEET
dNTP Mix incl. dUTP, PCR Grade
Premix of 10 mM dATP, dCTP, dGTP and 20 mM dUTP

Cat.-No.	Volume	Amount	Conc.
NU-1020S	200 µl	2 µmol dATP, dCTP, dGTP and 4 µmol dUTP	10 mM dATP, dCTP, dGTP and 20 mM dUTP
NU-1020L	1 ml	10 µmol dATP, dCTP, dGTP and 20 µmol dUTP	10 mM dATP, dCTP, dGTP and 20 mM dUTP

Description	dNTP Mix incl. dUTP is a mixture of 10 mM dATP, dCTP, dGTP and 20 mM dUTP supplied as ultrapure aqueous solution. dUTP can be used in place of dTTP in PCR and RT-PCR protocols to prevent carry-over contaminations from previous amplifications.
Storage	Store at -20°C, short term (up to one week) exposure to ambient temperature possible
Stability	Quality guaranteed for 12 months

Biophysical Specifications

	dATP	dCTP	dGTP	dUTP
CAS Number	1927-31-7	102783-51-7	93919-41-6	102814-08-4
Formula (Anion)	C ₁₀ H ₁₃ N ₅ O ₁₂ P ₃	C ₉ H ₁₃ N ₅ O ₁₃ P ₃	C ₁₀ H ₁₃ N ₅ O ₁₃ P ₃	C ₉ H ₁₂ N ₂ O ₁₄ P ₃
Molecular Weight	488.16 g·mol ⁻¹	464.13 g·mol ⁻¹	504.16 g·mol ⁻¹	465.12 g·mol ⁻¹
Appearance	clear aqueous solution	clear aqueous solution	clear aqueous solution	clear aqueous solution
Concentration (22°C, pH 7.0)	100-110 mM (A _{259 nm} , ε = 15.1 l·mmol ⁻¹ ·cm ⁻¹)	100-110 mM (A _{271 nm} , ε = 8.9 l·mmol ⁻¹ ·cm ⁻¹)	100-110 mM (A _{252 nm} , ε = 14.2 l·mmol ⁻¹ ·cm ⁻¹)	100-110 mM (A _{262 nm} , ε = 9.8 l·mmol ⁻¹ ·cm ⁻¹)
A _{250 nm} / A _{260 nm} (22°C, pH 7.0)	0.78 ± 0.02	0.82 ± 0.02	1.15 ± 0.03	0.74 ± 0.02
A _{280 nm} / A _{260 nm} (22°C, pH 7.0)	0.15 ± 0.01	0.97 ± 0.02	0.67 ± 0.02	0.38 ± 0.02
A _{290 nm} / A _{260 nm} (22°C, pH 7.0)	--	0.30 ± 0.02	0.28 ± 0.02	0.04 ± 0.02
pH (4°C)	8.5 ± 0.1	8.5 ± 0.1	8.5 ± 0.1	8.5 ± 0.1
Purity (HPLC area)	dATP ≥ 99.0% dADT ≤ 0.9% dAMP ≤ 0.5%	dCTP ≥ 99.0% dCDT ≤ 0.9% dCMP ≤ 0.5%	dGTP ≥ 99.0% dGDT ≤ 0.9% dGMP ≤ 0.5%	dUTP ≥ 99.0% dUDT ≤ 0.9% dUMP ≤ 0.5%

Functional Specifications

Low Copy PCR (1 kb, lambda DNA, template dilution series)	PCR fragment with 100 pg of template or less
Contamination with bacterial or human DNA	not detectable
DNases, RNases, Nicking Activity	not detectable
Proteases	not detectable