

Certificate of Analysis



Product Name:	dNTP Mix 25
Cat.-No.	DMIX25_100ML DMIX25_1000ML
Contents:	aqueous solution of sodium salts of dATP, dCTP, dGTP, and dTTP
Concentration:	25 mM each dNTP
Lot-No.:	101.699

	Test	Specification	Results
Biophysical	Appearance	clear colorless solution	conforms
	pH (22 °C)	8.5 ± 0.2	8.4
Purity	dNTP (C18-RP-UV, 259 nm) (each component separately)	≥ 99.0 % (area)	dATP, 101.611: 99.7 % dATP, 101.697: 99,6 % dCTP, 101.643: 99,7 % dGTP, 101.631: 99,6 % dTTP, 101.607: 99,6 %
	dNDP (C18-RP-UV, 259 nm) (each component separately)	≤ 0.5 % (area)	conforms
	NTP (C18-RP-UV, 259 nm) (each component separately)	≤ 0.1 % (area)	conforms
Functional	Low Copy Long Range PCR (18 kb, lambda DNA, template dilution series)	PCR fragment with ≤ 100 pg of template	20 pg
	RT-PCR (749 bp fragment, human GAPDH gene, template dilution series) (each component separately)	PCR fragment with ≤ 10 pg of template	5 pg
	Contamination with bacterial DNA (qPCR, 30 cycles, amplification of 16S rRNA gene ⁽¹⁾) (each component separately)	not detectable	conforms
	Contamination with human DNA (qPCR, 30 cycles, amplification of beta-actin gene ⁽²⁾) (each component separately)	not detectable	conforms
	DNases, RNases, Nicking Activity, Endo- and Exonucleases, Endodeoxyribonucleases (FRET) (each component separately)	not detectable	conforms
Proteases (UV-Vis) (each component separately)	not detectable	conforms	

Anions & Cations	Chloride Cl ⁻ (Anion chromatography) (each component separately)	≤ 10 mM	conforms
	Acetate CH ₃ COO ⁻ (GC/FID) (each component separately)	≤ 2 mM	conforms
	Magnesium Mg ²⁺ (ICP-MS) (each component separately)	≤ 5 mM	conforms
	Calcium Ca ²⁺ (ICP-MS) (each component separately)	≤ 0.25 mM	conforms
	Total Heavy Metals ⁽³⁾ (ICP-MS) (each component separately)	≤ 5 µg x ml ⁻¹	conforms

⁽¹⁾ Greisen et al. (1994) J. Clin. Microbiol. 32(2):335

⁽²⁾ Fields et al. (2001) Toxicol. Sci. 63:107

⁽³⁾ Ba, Cd, Co, Cr, Cu, Fe, Mn, Mo, Ni, Pb, Sn, U

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