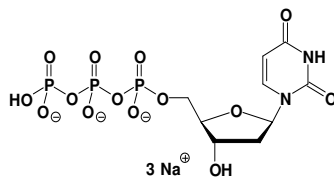


DATA SHEET
dUTP, PCR Grade
2'-Deoxyuridine 5'-triphosphate, sodium salt

Cat.-No.	Volume	Amount	Conc.
NU-1008	1 ml	100 μ mol	100 mM

Description	dUTP, PCR Grade is supplied as ultrapure aqueous solution and suitable for all molecular biology applications including PCR/qPCR, reverse transcription, DNA labeling and DNA sequencing. dUTP can be used in place of dTTP in PCR and RT-PCR protocols to prevent carry-over contaminations from previous amplifications.
CAS Number	102814-08-4
Formula (Anion)	$C_9H_{12}N_2O_{14}P_3$
Molecular Weight	$465.12 \text{ g}\cdot\text{mol}^{-1}$
Storage	Store at -20°C , short term (up to one week) exposure to ambient temperature possible
Stability	Quality guaranteed for 12 months
Structure	 <p>The structure shows a deoxyribose sugar with a triphosphate group at the 5' position and a uracil base at the 1' position. The triphosphate group is shown as three phosphate units linked together, with the terminal phosphate having a negative charge. Three sodium ions (3 Na^+) are shown as counterions.</p>

Biophysical Specifications

Appearance	clear colorless solution
Concentration (22°C, pH 7.0)	100-110 mM ($A_{262 \text{ nm}}$, $\epsilon = 9.8 \text{ l}\cdot\text{mmol}^{-1}\cdot\text{cm}^{-1}$)
$A_{250 \text{ nm}} / A_{260 \text{ nm}}$ (22°C, pH 7.0)	0.74 ± 0.02
$A_{280 \text{ nm}} / A_{260 \text{ nm}}$ (22°C, pH 7.0)	0.38 ± 0.02
$A_{290 \text{ nm}} / A_{260 \text{ nm}}$ (22°C, pH 7.0)	0.04 ± 0.02
pH (4°C)	8.5 ± 0.1
Purity (HPLC area)	dUTP $\geq 99.0\%$ dUDT $\leq 0.9\%$ dUMP $\leq 0.5\%$

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