

dNTP Solutions

for DNA labeling and amplification
(E533, E536, E539, E542)



dNTP's (deoxyribonucleotide triphosphates; dATP, dCTP, dGTP and dTTP) are used in research to generate DNA second strands for PCR* amplification, random-primed and nick-labeling, DNA sequencing and reverse transcription reactions. In most labeling reactions (including DNA sequencing reactions), a combination of three unlabeled ("cold") dNTP's are mixed with one labeled ("hot") dNTP. For this reason, it is often advantageous to prepare the four individual deoxynucleotide triphosphates as separate stock solutions.

AMRESCO dNTP solutions are provided in a 100mM concentration in sterile, deionized water at neutral pH. The neutral pH is important to maintain the stability of the materials in solution. Additionally, these solutions are prepared from monosodium salts of the free nucleotides, and no excess sodium ion is used in buffering. Excess sodium ions in solution can inhibit DNA amplification reactions.

Our manufacturing process ensures these solutions are free of nucleases and contaminating nucleic acids, and are function tested in Klenow and thermostable polymerase reactions.

Assay

pH	7.0 ± 0.5
Stability (-20°C)	1 year
Absorption Maxima (pH 7.0):	
dATP	259nm ± 2nm
dCTP	271nm ± 2nm
dGTP	253nm ± 2nm
dTTP	267nm ± 2nm

ORDERING INFORMATION:

	Code	Size
dATP, 100mM, pH 7.0	E533	40 µmoles
dCTP, 100mM, pH 7.0	E536	40 µmoles
dGTP, 100mM, pH 7.0	E539	40 µmoles
dTTP, 100mM, pH 7.0	E542	40 µmoles

* The PCR process is covered under patents owned by Hoffmann-La Roche Inc. Purchase of these solutions does not confer license to practice PCR under any patents held by Hoffmann-La Roche.

