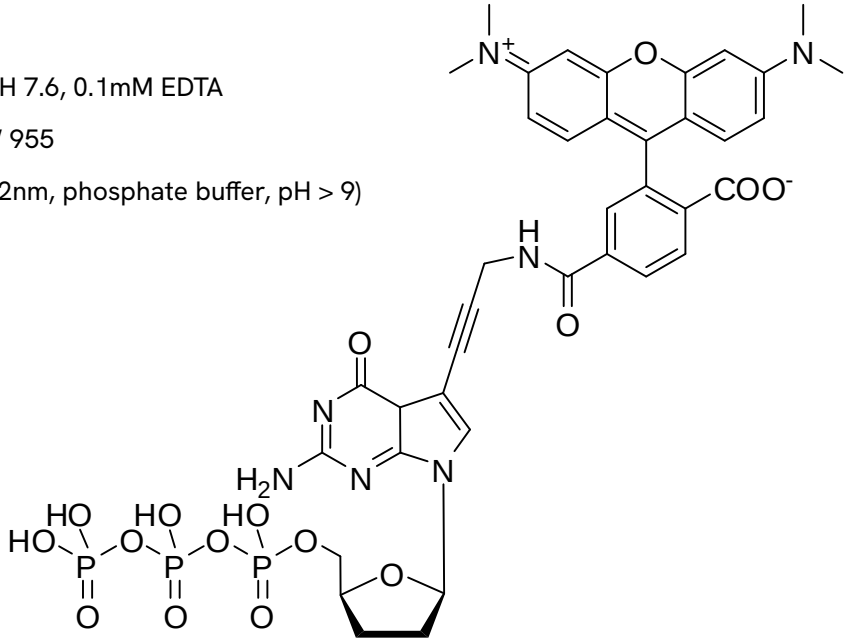
TAMRA-ddGTP

Product Number: NEL475001EA

Quantity:	2.5 nmol
Form:	25 µL solution
Concentration:	0.1 mM
Solvent:	10 mM Tris-HCL, pH 7.6, 0.1mM EDTA
Formula:	$C_{39}H_{40}N_7O_{16}P_3$. MW 955
Extinction Coefficient:	91,000 $M^{-1}cm^{-1}$ (552nm, phosphate buffer, pH > 9)
Excitation Maximum:	552 nm
Emission Maximum:	575 nm



Introduction

Fluorescent dideoxynucleotide analogs are 3′-end chain terminators used for DNA sequencing, RFLP mapping, DNA fingerprinting, and point mutation screening analysis. Labeled DNA patterns may be obtained by either separating labeled fragments using standard polyacrylamide gel electrophoresis techniques or with primer/template coated microarrays using 96-well microplates or glass slides as solid supports. Detection is via the direct fluorescence of the nucleotide analog using classical excitation/emission or when using two fluorescent dyes in combination via fluorescence resonance energy transfer (FRET). These analogs are available with a variety of fluorophores attached to each of the four dideoxynucleotides to permit maximum assay flexibility.

Quality Control

The nucleotide analog is purified by HPLC chromatography. Analytical HPLC is used as a quality control check to ensure chemical and isomeric purity >95%. UV/VIS absorption spectra are obtained in aqueous phosphate buffer to determine concentration. Relative fluorescence quantum yields are not necessarily the same for the four different base nucleotide analogs.

Stability and Storage Conditions

Nucleotides labeled with fluorophores should be protected from extended exposure to light. These nucleotide analogs are stable kept in a refrigerator or colder for at least 1 year. Minimizing freeze-thaw cycles and exposure to light are most critical factors to consider for long term usage.

NEL475001EA-R REV01

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