



Aminoallyl-dUTP-XX-AF647

5-(3-Aminoallyl)-2'-deoxyuridine-5'-triphosphate, labeled with AF647, Triethylammonium salt

Cat. No.	Amount
NU-803-XX-AF647-S	10 µl (1 mM)
NU-803-XX-AF647-L	5 x 10 µl (1 mM)

For general laboratory use.

Shipping: shipped on gel packs

Storage Conditions: store at -20 °C

Short term exposure (up to 1 week cumulative) to ambient temperature possible.

Shelf Life: 12 months after date of delivery

Molecular Formula: C₆₁H₈₈N₇O₂₉P₃S₂ (free acid)

Molecular Weight: 1604.56 g/mol (free acid)

Exact Mass: 1603.37 g/mol (free acid)

Purity: ≥ 95 % (HPLC)

Form: filtered solution (30 kDa) in 10 mM Tris-HCl

Color: blue

Concentration: 1.0 mM - 1.1 mM

pH: 7.5 ± 0.5

Spectroscopic Properties: λ_{exc} 648 nm, λ_{em} 671 nm, ε 270.0 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)

Applications:

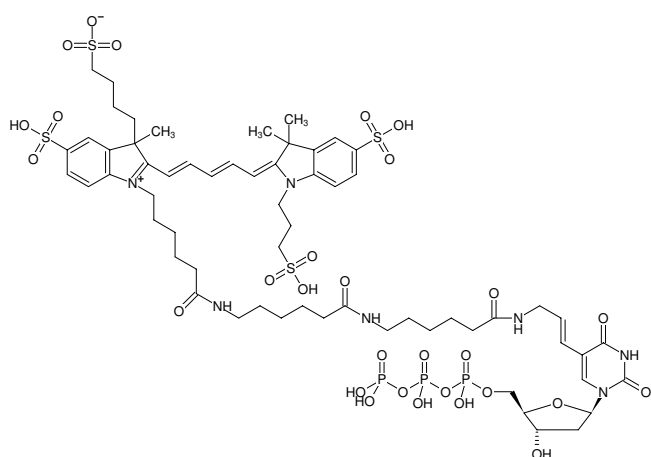
- Incorporation into DNA/cDNA by
 - PCR with *Taq* polymerase in-house data
 - Nick Translation with DNase I/ DNA Polymerase I in-house data

Description:

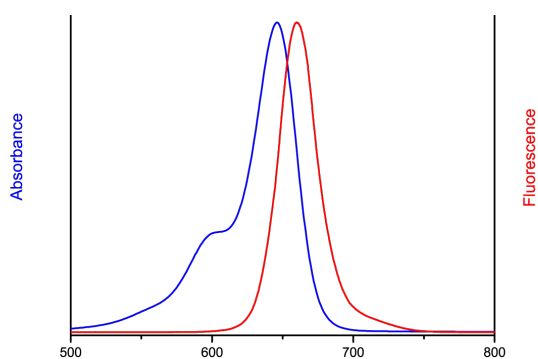
Aminoallyl-dUTP-XX-AF647 is recommended for direct enzymatic labeling of DNA/cDNA e.g. by PCR and Nick Translation. It is incorporated as substitute for its natural counterpart dTTP. The resulting Dye-labeled DNA/cDNA probes are ideally suited for fluorescence hybridization applications such as FISH or microarray-based gene expression profiling. Optimal substrate properties and thus labeling efficiency is ensured by an optimized linker attached to the C5 position of uridine. AF647 (structural analog to Alexa Fluor 647®) is a hydrophilic dye with excellent photostability compared to fluorescein.

Recommended Aminoallyl-dUTP-XX-AF647/dTTP ratio for PCR and Nick Translation: 30-50% Aminoallyl-dUTP-XX-AF647/ 70-50% dTTP

Please note: Protect the Dye-labeled dUTP from exposure to light and carry out experimental procedures in low light conditions. The optimal final concentration of the Dye-labeled dUTP may vary depending on the application and assay conditions. For optimal product yields and high incorporation rates an individual optimization of the Dye-labeled-dUTP/dTTP ratio is recommended.



Structural formula of Aminoallyl-dUTP-XX-AF647



excitation and emission spectrum of AF647



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Related Products:

HighFidelity AF647 PCR Labeling Kit, #APP-101-AF647

HighFidelity RED PCR Labeling Testkit, #APP-101-RED

AF647 NT Labeling Kit, #PP-305-AF647