DATA SHEET

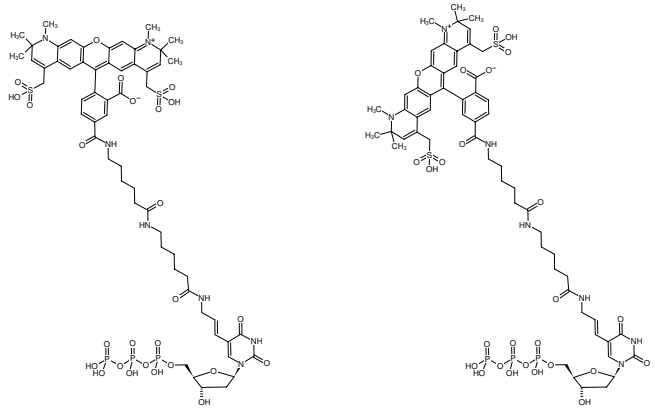
Jena Bioscience

Aminoallyl-dUTP-XX-AF594

also known as Alexa Fluor 594®-dUTP

5-(3-Aminoallyl)-2'-deoxyuridine-5'-triphosphate, labeled with AF594, Triethylammonium salt

Cat. No.	Amount
NU-803-XX-AF594-S	10 µl (1 mM)
NU-803-XX-AF594-L	5 x 10 µl (1 mM)



Structural formula of Aminoallyl-dUTP-XX-AF594

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: $C_{59}H_{74}N_7O_{26}P_3S_2$ (free acid)

Molecular Weight: 1454.30 g/mol (free acid)

Exact Mass: 1453.33 g/mol (free acid)

Purity: ≥ 95 % (HPLC)

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

Color: red-violet

Concentration: 1.0 mM - 1.1 mM

pH: 7.5 ±0.5

Spectroscopic Properties: λ_{exc} 590 nm, λ_{em} 617 nm, ε 92.0 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-AF594 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. AF594 (also known as Alexa Fluor 594®) is a hydrophilic dye with excellent photostability compared to fluorescein.

Recommended Aminoallyl-dUTP-XX-AF594/dTTP ratio for PCR and Nick Translation: 30-50% Aminoallyl-dUTP-XX-AF594/ 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 very 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.

Related Products:
HighFidelity AF594 PCR Labeling Kit, #APP-101-AF594
HighFidelity ORANGE PCR Labeling Kit, #APP-101-ORANGE
AF594 NT Labeling Kit, #PP-305-AF594