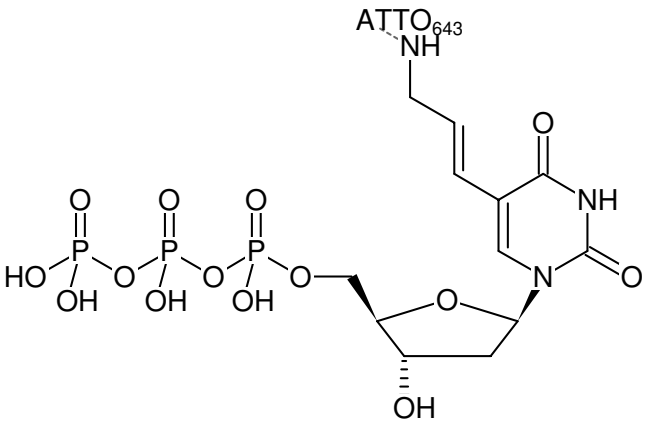
DATA SHEET

Jena Bioscience

Aminoallyl-dUTP-ATTO-643

5-(3-Aminoallyl)-2'-deoxyuridine-5'-triphosphate, labeled with ATTO 643, Triethylammonium salt

Cat. No.	Amount
NU-803-643-S	10 µl (1 mM)
NU-803-643-L	5 x 10 µl (1 mM)



Structural formula of Aminoallyl-dUTP-ATTO-643

For general laboratory use.

Please centrifuge briefly before opening (volume ≤2 ml).

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: $C_{12}H_{19}N_3O_{14}P_3$ - ATTO 643 (free acid)

Molecular Weight: 1340.4 g/mol (free acid)

Purity: ≥ 95 % (HPLC)

Form: solution in 10 mM Tris-HCl

Color: blue

Concentration: 1.0 mM - 1.1 mM

pH: 7.5 ±0.5

Spectroscopic Properties: λ_{exc} 643 nm, λ_{em} 665 nm, ε 150.0 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-643 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. ATTO 643 is a hydrophilic dye with excellent photostability compared to fluorescein.

Recommended Aminoallyl-dUTP-643/dTTP ratio for PCR and Nick Translation: 30-50% Aminoallyl-dUTP-643/ 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 ATTO643 PCR Labeling Kit, #APP-101-643
HighFidelity RED PCR Labeling Testkit, #APP-101-RED