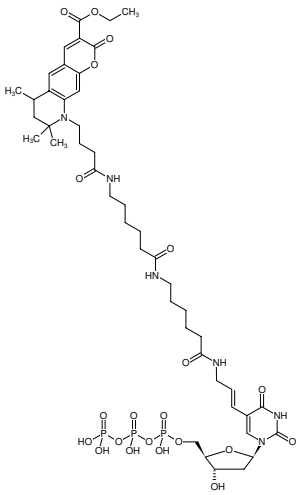
DATA SHEET

Jena Bioscience

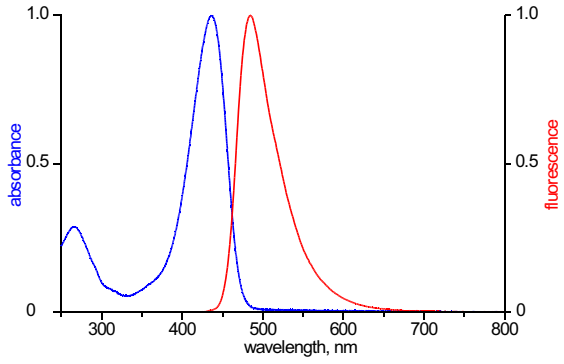
Aminoallyl-dUTP-XX - ATTO-425

5-(3-Aminoallyl)-2'-deoxyuridine-5'-triphosphate, labeled with ATTO 425, Triethylammonium salt

Cat. No.	Amount
NU-803-XX-425-S	10 µl (1 mM)
NU-803-XX-425-L	5 x 10 µl (1 mM)



Structural formula of Aminoallyl-dUTP-XX - ATTO-425



Excitation and Emission spectrum of ATTO 425

For research use only!

Shipping: shipped on blue ice

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: $C_{46}H_{67}N_6O_{21}P_3$ (free acid)

Molecular Weight: 1132.97 g/mol (free acid)

Purity: ≥ 95 % (HPLC)

Form: sterile green-yellow solution in 10 mM Tris-HCl

Concentration: 1.0 mM - 1.1 mM

pH: 7.5 ±0.5

Spectroscopic Properties: λ_{exc} 439 nm, λ_{em} 485 nm, ε 45.0 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-ATTO425 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.

Recommended Aminoallyl-dUTP-XX-ATTO425/dTTP ratio for PCR and Nick Translation: 20-30% Aminoallyl-dUTP-XX-ATTO425/ 80-70% dTTP (PCR), 30-50% Aminoallyl-dUTP-XX-ATTO425/ 70-50% dTTP (Nick Translation)

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.