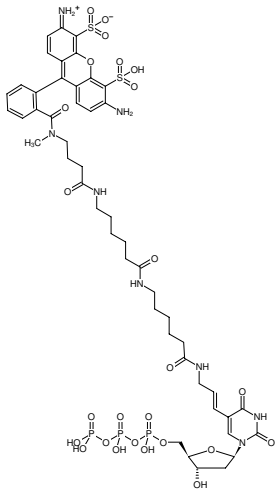
DATA SHEET

Jena Bioscience

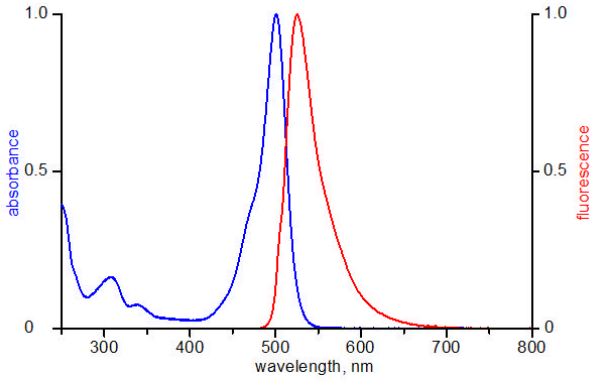
Aminoallyl-dUTP-XX-ATTO-488

5-(3-Aminoallyl)-2'-deoxyuridine-5'-triphosphate, labeled with ATTO 488, Triethylammonium salt

Cat. No.	Amount
NU-803-XX-488-S	10 µl (1 mM)
NU-803-XX-488-L	5 x 10 µl (1 mM)



Structural formula of Aminoallyl-dUTP-XX-ATTO-488



excitation and emission spectrum of ATTO 488

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: $C_{49}H_{63}N_8O_{25}P_3S_2$ (free acid)

Molecular Weight: 1321.11 g/mol (free acid)

Exact Mass: 1320.26 g/mol (free acid)

Purity: ≥ 95 % (HPLC)

Form: solution in 10 mM Tris-HCl

Color: yellow

Concentration: 1.0 mM - 1.1 mM

pH: 7.5 ±0.5

Spectroscopic Properties: λ_{exc} 500 nm, λ_{em} 520 nm, ε 90.0 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-ATTO488 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-ATTO488/dTTP ratio for PCR and Nick Translation: 30-50% Aminoallyl-dUTP-XX-ATTO488/ 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.

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