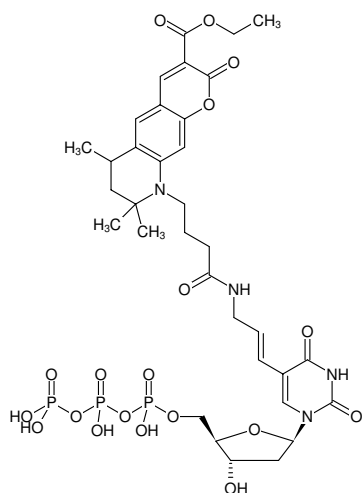




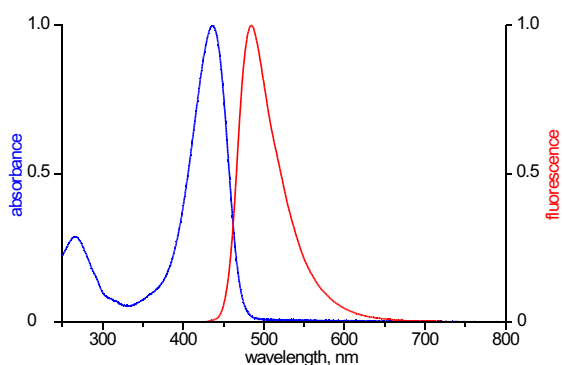
Aminoallyl-dUTP-ATTO-425

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

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



Structural formula of Aminoallyl-dUTP-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: C₃₄H₄₅N₄O₁₉P₃ (free acid)

Molecular Weight: 906.66 g/mol (free acid)

Exact Mass: 906.16 g/mol (free acid)

Purity: ≥ 95 % (HPLC)

Form: green-yellow solution in water

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



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Selected References:

Basinko *et al.* (2012) Clinical and molecular cytogenetic studies in ring chromosome 5: report of a child with congenital abnormalities. *Eur. J. Med. Genet.* **55** (2):112.