

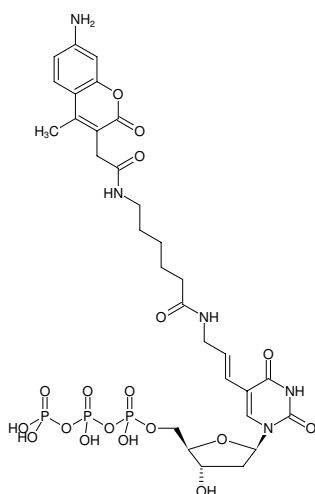
**AMCA-6-dUTP**

Aminoallyl-dUTP - AMCA

Aminomethylcoumarin-6-dUTP

Aminomethylcoumarin-(5-aminoallyl)-2'-deoxyuridine-5'-triphosphate, Triethylammonium salt

Cat. No.	Amount
NU-803-AMCA	25 µl (1 mM)



Structural formula of AMCA-6-dUTP

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:** C₃₀H₄₀N₅O₁₈P₃ (free acid)**Molecular Weight:** 851.58 g/mol (free acid)**Exact Mass:** 851.16 g/mol (free acid)**Purity:** ≥ 95 % (HPLC)**Form:** filtered solution (30 kDa) in 10 mM Tris-HCl**Concentration:** 1.0 mM - 1.1 mM**pH:** 7.5 ±0.5**Spectroscopic Properties:** λ_{exc} 350 nm, λ_{em} 450 nm, ε 19.0 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:**

AMCA-6-dUTP 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 AMCA-6-dUTP/dTTP ratio for PCR and Nick Translation: 20-30% AMCA-6-dUTP/ 80-70% dTTP (PCR), 30-50% AMCA-6-dUTP/ 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.