

Product Datasheet

AMCA-6-dUTP (orb178359)

Catalog Number	orb178359
Category	Small Molecules
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).
Form/Appearance	filtered solution (30 kDa) in 10 mM Tris-HCl; pH: 7.5 ± 0.5
Concentration	1.0 mM-1.1 mM
Purity	≥ 95% (HPLC)
MW	Theoretical MW: 851.58 g/mol (free acid); Detected MW: 851.16 g/mol (free acid)
Application notes	Incorporation into DNA/cDNA by: PCR with Taqpolymerase in-house data; Nick Translation with DNase I/DNA Polymerase in-house data. Spectroscopic Properties: λ _{exc} 350 nm, λ _{em} 450 nm, ε 19.0 L mmol ⁻¹ cm ⁻¹ (Tris-HCl pH 7.5).
Formula	C ₃₀ H ₄₀ N ₅ O ₁₈ P ₃
SMILES	<chem>C(/C=C/c1cn(c(=O)[nH]c1=O)[C@H]1C[C@@H]([C@H](O1)COP(=O)(O)OP(=O)(O)OP(=O)(O)O)NC(=O)CCCCNC(=O)Cc1c(c2c(oc1=O)cc(cc2)N)C</chem>
Storage	store at -20 °C
Note	For research use only

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Expiration Date

12 months from date of receipt.

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