

Product Datasheet

Aminoallyl-dUTP-Cy5 (orb1733879)

Catalog Number	orb1733879
Category	Small Molecules
Description	Aminoallyl-dUTP-Cy5 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-Cy5/dTTP ratio for PCR and Nick Translation: 30-50% Aminoallyl-dUTP-Cy5/70-50% dTTP.
Form/Appearance	filtered solution (30 kDa) in 10 mM Tris-HCl; Color: blue; pH: 7.5 ± 0.5
Concentration	1.0 mM-1.1 mM
Purity	≥ 95% (HPLC)
MW	Theoretical MW: 1162.01 g/mol (free acid); Detected MW: 1161.23 g/mol (free acid)
Application notes	Incorporation into DNA/cDNA by: PCR with Taq polymerase in-house data; Nick Translation with DNase I/DNA Polymerase in-house data. Spectroscopic Properties: λ _{exc} 649 nm, λ _{em} 670 nm, ε 250.0 L mmol ⁻¹ cm ⁻¹ (Tris-HCl pH 7.5).
Formula	C ₄₅ H ₅₈ N ₅ O ₂₁ P ₃ S ₂
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)CCCCCN1/C(=C/C=C/C=C/C2=[N+](CC)c3c(C2(C)C)cc(S(=O)(=O)[O-])cc3)/C(c2c1ccc(c2)S(=O)(=O)O)(C)C</chem>
Storage	store at -20 °C. Short term exposure (up to 1 week cumulative) to ambient temperature possible

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Note

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