

Product Datasheet

Aminoallyl-dUTP-XX-AF594 (orb1733422)

Catalog Number	orb1733422
Category	Small Molecules
Description	Aminoallyl-dUTP-XX-AF594 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. AF594 (also known as Alexa Fluor 594®) is a hydrophilic dye with excellent photostability compared to fluorescein. Recommended Aminoallyl-dUTP-XX-AF594/dTTP ratio for PCR and Nick Translation: 30-50% Aminoallyl-dUTP-XX-AF594/70-50% dTTP.
Form/Appearance	filtered solution (30 kDa) in 10 mM Tris-HCl; Color: red-violet; pH: 7.5 ± 0.5
Concentration	1.0 mM-1.1 mM
Purity	≥ 95% (HPLC)
MW	Theoretical MW: 1454.30 g/mol (free acid); Detected MW: 1453.33 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} 590 nm, λ_{em} 617 nm, ε 92.0 L mmol⁻¹, cm⁻¹ (Tris-HCl pH 7.5).
Formula	C ₅₉ H ₇₄ N ₇ O ₂₆ P ₃ S ₂

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SMILES

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)CCCCCNC(=O)CCCCCNC(=O)c1ccc(C2=C3cc4C(=CC(C)(C)[N+](=C4cc3Oc3cc4N(C)C(C)(C)C=C(CS(=O)(=O)O)c4cc23)C)CS(=O)(=O)O)c(c1)C(=O)[O-].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)CCCCCNC(=O)CCCCCNC(=O)c1ccc(c(C2=C3cc4C(=CC(C)(C)[N+](=C4cc3Oc3cc4N(C)C(C)(C)C=C(CS(=O)(=O)O)c4cc23)C)CS(=O)(=O)O)c1)C(=O)[O-]

Storage

store at -20 °C. Short term exposure (up to 1 week cumulative) to ambient temperature possible

Note

For research use only

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