

Product Datasheet

Rhodamine-12-dCTP (orb533143)

Catalog Number	orb533143
Category	Small Molecules
Description	Rhodamine-12-dCTP is recommended for direct enzymatic labeling of DNA/cDNA by Nick Translation. It is incorporated as substitute for its natural counterpart dCTP. 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 cytidine. Recommended Rhodamine-12-dCTP/dCTP ratio for Nick Trans-lation: 30-50% Rhodamine-12-dCTP/70-50% dCTP.
Form/Appearance	solution in water; Color: orange; pH: 7.5 ± 0.5
Concentration	1.0 mM-1.1 mM
Purity	≥ 95% (HPLC)
MW	Theoretical MW: 989.71 g/mol (free acid); Detected MW: 989.18 g/mol (free acid)
Application notes	Incorporation into DNA/cDNA by Nick Translation with DNase I/DNA Polymerase lin-house data. Spectroscopic Propertie: λ_{exc} 505 nm, λ_{em} 530 nm, ε 85.0 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5).
Formula	C ₃₉ H ₄₂ N ₇ O ₁₈ P ₃
SMILES	<chem>N(CC#Cc1cn(c(=O)nc1N)[C@@H]1O[C@H](COP(=O)(O)OP(=O)(O)OP(=O)(O)O)[C@@H](O)C1)C(=O)CCCCNC(=O)c1ccc(c(c1)c1c2ccc(cc2oc2-c1ccc(=[NH2+])c2)N)C(=O)[O-]</chem>
Storage	store at -20 °C
Note	For research use only

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