

Product Datasheet

Biotin-11-dUTP (orb64042)

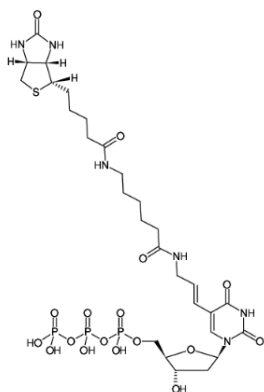
Description	Biotin-11-dUTP is enzymatically incorporated into DNA/cDNA as sub-stitute for its natural counterpart dTTP. The resulting Biotin-labeled DNA/cDNA probes are subsequently detected using streptavidin conjugated with horseradish peroxidase (HRP), alkaline phosphatase (AP), a fluorescent dye or agarose/magnetic beads. Optimal sub-strate properties and thus labeling efficiency as well as an efficient detection of the Biotin moiety is ensured by a 11-atom linker attached to the C5 position of uridine. Recommended Biotin-11-dUTP/dTTP ratio for PCR and Nick Translation: 50% Biotin-11-dUTP/50% dTTP.
Form/Appearance	filtered solution (30 kDa) in 10 mM Tris-HCl; Color: colorless to slightly yellow; pH: 7.5 ± 0.5
Concentration	1.0 mM-1.1 mM
Storage	store at -20 °C
Note	For research use only
Application notes	Incorporation into DNA/cDNA by: PCR with Taqpolymerase & in-house data; Nick Translation with DNase I/DNA Polymerase I & in-house data; Primer Extension with Klenow 3'-5' exo-; 3'-End Labeling with Terminal deoxynucleotidyl Transferase (TdT); Reverse Transcription with MMLV Reverse Transcriptase. br>b>Spectroscopic Propertie: λ _{max} 240/289 nm, ε 10.7/7.1 L mmol ⁻¹ cm ⁻¹ , (Tris-HCl pH 7.5).
Formula	C ₂₈ H ₄₅ N ₆ O ₁₇ P ₃ S
Purity	≥ 95% (HPLC)
MW	Theoretical MW: 862.67 g/mol (free acid); Detected MW: 862.18 g/mol (free acid)
SMILES	C1[C@H]2[C@@H]([C@@H](S1)CCCC(=O)NCCCCC(=O)NC/C=C/c1c(=O)[nH]c(=O)n([C@H]3C[C@@H]([C@H](O3)COP(=O)(OP(=O)(OP(=O)(O)O)O)O)c1)NC(=O)N2
Expiration Date	12 months from date of receipt.

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Chemical structure of Biotin-11-dUTP (Biotin).

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