

## Product Datasheet

### Biotin-11-dUTP (orb64042)

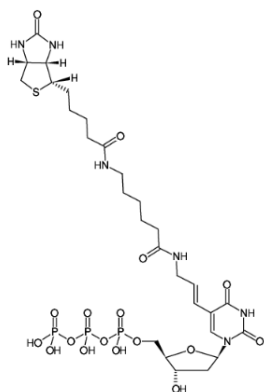
<b>Description</b>	Biotin-11-dUTP is enzymatically incorporated into DNA/cDNA as sub-stitute for its natural counterpart dTTP. The resulting Biotin-labeled DNA/cDNA probes are subsequently detected using streptavidin conjugated with horseradish peroxidase (HRP), alkaline phosphatase (AP), a fluorescent 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.
<b>Form/Appearance</b>	filtered solution (30 kDa) in 10 mM Tris-HCl; Color: colorless to slightly yellow; pH: 7.5 ± 0.5
<b>Concentration</b>	1.0 mM-1.1 mM
<b>Storage</b>	store at -20 °C
<b>Note</b>	For research use only
<b>Application notes</b>	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 <sub>max</sub> 240/289 nm, ε 10.7/7.1 L mmol <sup>-1</sup> cm <sup>-1</sup> , (Tris-HCl pH 7.5).
<b>Formula</b>	C <sub>28</sub> H <sub>45</sub> N <sub>6</sub> O <sub>17</sub> P <sub>3</sub> S
<b>Purity</b>	≥ 95% (HPLC)
<b>MW</b>	Theoretical MW: 862.67 g/mol (free acid); Detected MW: 862.18 g/mol (free acid)
<b>SMILES</b>	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
<b>Expiration Date</b>	12 months from date of receipt.

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

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