

Product Datasheet

DIG-11-dUTP (orb2646501)

Catalog Number	orb2646501
Category	Small Molecules
Description	Digoxigenin-11-dUTP is enzymatically incorporated into DNA/cDNA as substitute for its natural counterpart dTTP. The resulting Digoxigenin-labeled DNA/cDNA probes are subsequently detected using Digoxigenin-antibodies conjugated with horseradish peroxidase (HRP), alkaline phosphatase (AP) or a fluorescent dye. Optimal substrate properties and thus labeling efficiency is ensured by a 11-atom linker attached to the C5 position of uridine. Recommended Digoxigenin-11-dUTP/dTTP ratio for PCR and Nick Translation: 35% Digoxigenin-11-dUTP/ 65% dTTP Please note: The optimal final concentration of Digoxigenin-11-dUTP may vary depending on the application and assay conditions. For optimal product yields and high incorporation rates an individual optimization of the Digoxigenin-11-dUTP/dTTP ratio is recommended.
Form/Appearance	filtered solution (30 kDa) in 10 mM Tris-HCl, Color: colorless to slightly yellow
Concentration	1.0 mM - 1.1 mM
Purity	≥ 95 % (HPLC)
MW	1066.91 g/mol (free acid)
Application notes	Incorporation into DNA/cDNA by - PCR with Taq polymerase [1,2] & in-house data - Nick Translation with DNase I/ DNA Polymerase I [3] and in-house data - Primer Extension with Klenow exo- [4] - 3'-End Labeling with Terminal deoxynucleotidyl Transferase (TdT) [5] - Reverse Transcription with MMLV Reverse Transcriptase [6] Incorporation into RNA by - 3'-End Labeling with Terminal deoxynucleotidyl Transferase (TdT) [7], Spectroscopic Properties: λ _{max} 290 nm, ε 8.8 L mmol ⁻¹ cm ⁻¹ (Tris-HCl pH 7.5)
Formula	C ₄₃ H ₆₅ N ₄ O ₂₁ P ₃ (free acid)

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States

Email: info@biorbyt.com, support@biorbyt.com
Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558

SMILES	<chem>C1[C@@H]2[C@](CC[C@@H]1OCC(=O)NCCCCC(=O)NC/C=C/c1c(=O)[nH]c(=O)n([C@@H]3O[C@H](COP(=O)(OP(=O)(OP(=O)(O)O)O)O)[C@@H](O)C3)c1)([C@@H]1[C@@H](CC2)[C@@]2([C@]([C@@H](C1)O)([C@H](CC2)C1=CC(=O)OC1)C)O)C</chem>
Storage	store at -20 °C. Short term exposure (up to 1 week cumulative) to ambient temperature possible
Note	For research use only
Expiration Date	12 months from date of receipt.

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7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

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Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

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NC 27713
United States

Email: info@biorbyt.com, support@biorbyt.com

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)