

Product Datasheet

5-TCO-PEG4-dUTP (orb1734975)

Catalog Number	orb1734975
Category	Tools
Description	5-TCO-dUTP is recommended for two-step labeling of DNA/cDNA e.g. by PCR. It is enzymatically incorporated into DNA/cDNA as substitute for its natural counterpart dTTP. The resulting TCO-functionalized DNA/cDNA can subsequently be labeled via Cu(I)-free Click Chemistry (TCO-Tetrazine-Ligation) that offers the choice: to introduce a Biotin group (via Tetrazines of Biotin) for subsequent purification tasks; to introduce fluorescent group (via Tetrazines of fluorescent dyes) for subsequent microscopic imaging; to crosslink the DNA to Tetrazine-functionalized biomolecules e.g. proteins.
Form/Appearance	solution in water; Color: colorless to slightly yellow; pH: 7.5 ± 0.5
Concentration	1.0 mM-1.1 mM
Purity	≥ 95% (HPLC)
MW	Theoretical MW: 922.70 g/mol (free acid); Detected MW: 922.24 g/mol (free acid)
Application notes	Incorporation into DNA/cDNA by PCR with Taq polymerase in-house data. Spectroscopic Properties: λ _{max} 240 nm, ε 10.7 L mmol ⁻¹ cm ⁻¹ (Tris-HCl, pH 7.5).
Formula	C ₃₂ H ₅₃ N ₄ O ₂₁ P ₃
SMILES	<chem>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)CCOCCOCCOCCOCCNC(=O)OC1CCCC=CCC1</chem>
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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