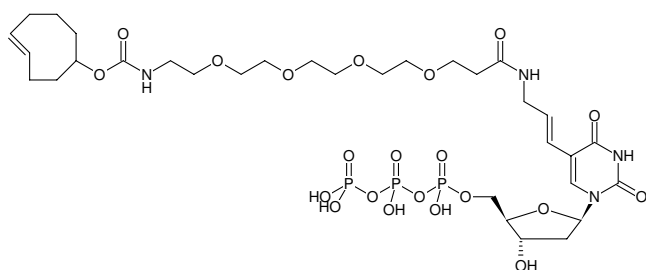


**5-TCO-PEG₄-dUTP**5-*trans*-Cyclooctene-PEG₄-dUTP

Cat. No.	Amount
CLK-035S	200 µl (1 mM)
CLK-035L	5 x 200 µl (1 mM)

Structural formula of 5-TCO-PEG₄-dUTP**For research use only!****Shipping:** shipped on blue ice**Storage Conditions:** store at -20 °C

Short term exposure (up to 1 week cumulative) to ambient temperature possible.

Shelf Life: 12 months after date of delivery**Molecular Formula:** C₃₂H₅₃N₄O₂₁P₃ (free acid)**Molecular Weight:** 922.70 g/mol (free acid)**Exact Mass:** 922.24 g/mol (free acid)**Purity:** ≥ 95 % (HPLC)**Form:** solution in water**Color:** colorless to slightly yellow**Concentration:** 1.0 mM - 1.1 mM**pH:** 7.5 ± 0.5**Spectroscopic Properties:** λ_{max} 240 nm, ε 10.7 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)**Applications:**

Incorporation into DNA/cDNA by

- PCR with *Taq* polymerase ^{in-house data}

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