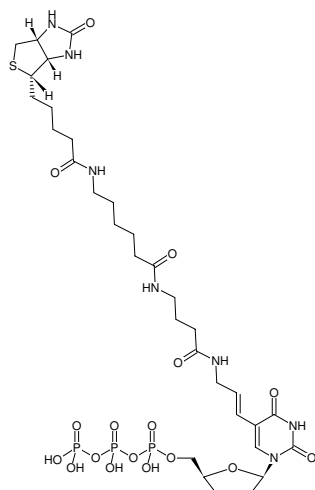


**Biotin-16-ddUTP**

Biotin-16-(5-aminoallyl)-ddUTP

Biotinyl-ε-aminocaproyl-γ-aminobutyryl-5-(3-aminoallyl)-2',3'-dideoxyuridine-5'-triphosphate, Triethylammonium salt

Cat. No.	Amount
NU-253-BIO16-S	25 µl (1 mM)
NU-253-BIO16-L	5 x 25 µl (1 mM)



Structural formula of Biotin-16-ddUTP

For general laboratory use.**Shipping:** shipped on gel packs**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:** C₃₂H₅₂N₇O₁₇P₃S (free acid)**Molecular Weight:** 931.78 g/mol (free acid)**Exact Mass:** 931.24 g/mol (free acid)**CAS#:** 188755-42-2 (Tetralithium salt), 748750-05-2 (free acid)**Purity:** ≥ 95 % (HPLC)**Form:** filtered solution (30 kDa) in 10 mM Tris-HCl**Color:** colorless to slightly yellow**Concentration:** 1.0 mM - 1.1 mM**pH:** 7.5 ± 0.5**Spectroscopic Properties:** λ_{max} 240/289 nm, ε 10.7/7.1 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)**Applications:**

- Technique for nanoscale patterning of functional molecules on the surface of a DNA origami^[1]
- 3'-end labeling of oligonucleotides with Terminal Transferase, recombinant and labeling DNA^[2,3]
- MALDI-TOF MS-based SNP typing assay^[4]
- Biotinylation of *in vitro* transcribed tmRNA during surface plasmon resonance (SPR) technique^[5]
- Use in the standard nick translation reaction for tumor DNA labelling during comparative genomic hybridization^[6]

Selected References:

[1] Jahn *et al.* (2011) Functional patterning of DNA origami by parallel enzymatic modification. *Bioconjugate Chem.* **22**:819.

[2] van de Vliet *et al.* (2009) Highly polymorphic microsatellite markers for the short-snouted seahorse (*Hippocampus hippocampus*), including markers from a closely related species the long-snouted seahorse (*Hippocampus guttulatus*). *Conservation Genet. Resour.* **1** (1):93.

[3] Tengs *et al.* (2007) Microarray-based method for detection of unknown genetic modifications. *BMC Biotechnology* **7** (1):91.

[4] Mengel-Jørgensen *et al.* (2005) Typing of multiple single-nucleotide polymorphisms using ribonuclease cleavage of DNA/RNA chimeric single-base extension primers and detection by MALDI-TOF mass spectrometry. *Anal. Chem.* **77** (16):5229.

[5] Okada *et al.* (2004) Contribution of the second OB fold of ribosomal protein S1 from *Escherichia coli* to the recognition of TmRNA. *Biosci. Biotechnol. Biochem.* **68** (11):2319.

[6] Liebisch *et al.* (2003) Value of comparative genomic hybridization and fluorescence in situ hybridization for molecular diagnostics in multiple myeloma. *British Journal of Haematology* **122**:193.