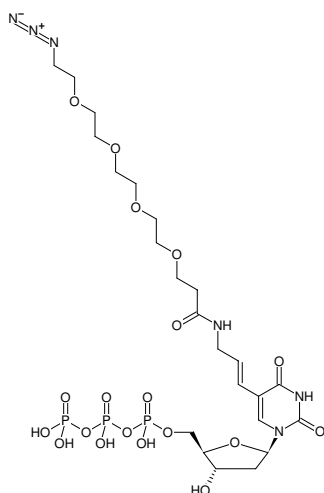




Azide-PEG₄-aminoallyl-dUTP

5-(15-Azido-4,7,10,13-tetraoxa-pentadecanoyl-aminoallyl)-2'-deoxyuridine-5'-triphosphate, Triethylammonium salt

| Cat. No. | Amount |
|----------|-------------------|
| NU-1705S | 50 µl (10 mM) |
| NU-1705L | 5 x 50 µl (10 mM) |



Structural formula of Azide-PEG₄-aminoallyl-dUTP

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: C₂₃H₃₉N₆O₁₉P₃ (free acid)

Molecular Weight: 796.51 g/mol (free acid)

Exact Mass: 796.15 g/mol (free acid)

Purity: ≥ 95 % (HPLC)

Form: solution in water

Color: colorless to slightly yellow

Concentration: 10 mM - 11 mM

pH: 7.5 ± 0.5

Spectroscopic Properties: λ_{max} 289 nm, ε 7.1 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)

Applications:

Incorporation into DNA/cDNA by

- PCR with *Taq* polymerase ^{in-house data}
- 3'-End Labeling with Terminal deoxynucleotidyl Transferase (TdT)^[1]

Description:

Azide-PEG₄-aminoallyl-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 Azide-functionalized DNA/cDNA can subsequently be labeled via Cu(I)-catalyzed or Cu(I)-free click chemistry that offers the choice

- to introduce a Biotin group (via Alkynes of Biotin or DBCO-functionalized Biotin, respectively) for subsequent purification tasks
- to introduce fluorescent group (via Alkynes of fluorescent dyes or DBCO-functionalized fluorescent dyes, respectively) for subsequent microscopic imaging
- to crosslink the DNA to Azide- or DBCO-functionalized biomolecules e.g. proteins

Selected References:

[1] Sorensen *et al.* (2013) Enzymatic Ligation of Large Biomolecules to DNA. *ACS Nano* **7** (9):8098.