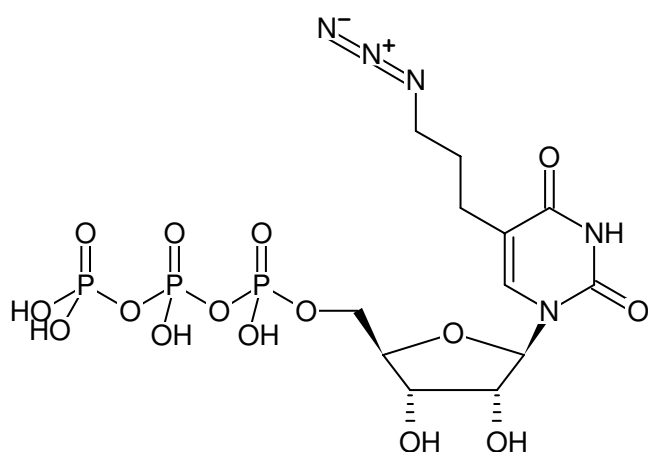


**5-Azido-C<sub>3</sub>-UTP**

5-(3-Azidopropyl)-uridine-5'-triphosphate, Triethylammonium salt

Cat. No.	Amount
NU-157S	20 µl (10 mM)
NU-157L	5 x 20 µl (10 mM)

Structural formula of 5-Azido-C<sub>3</sub>-UTP**For research use only!****Shipping:** shipped on gel packs**Storage Conditions:** store at -20 °C**Additional Storage Conditions:** avoid freeze/thaw cycles

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

**Shelf Life:** 12 months after date of delivery**Molecular Formula:** C<sub>12</sub>H<sub>20</sub>N<sub>5</sub>O<sub>15</sub>P<sub>3</sub> (free acid)**Molecular Weight:** 567.23 g/mol (free acid)**Exact Mass:** 567.02 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<sub>max</sub> 260 nm, ε 8.8 L mmol<sup>-1</sup> cm<sup>-1</sup> (Tris-HCl pH 7.5)**Applications:**

Incorporation into RNA by T7 RNA polymerase-mediated *in vitro* transcription (up to 1400 bp tested). For a comprehensive protocol please refer to PP-501 or PP-501-Cy3/Cy5.

**3'-Azide-Labeling of T7 promotor-containing oligonucleotides<sup>[1,2,3]</sup>**

The resulting azide-functionalized RNA can subsequently be processed via Cu(I)-free (azide-DBCO) or Cu(I)-catalyzed (azide-alkyne) click chemistry that offers the choice

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

**Related Products:**

HighYield T7 RNA Synthesis Kit, #RNT-101

HighYield T7 Azide RNA Labeling Kit, #RNT-101-AZ

**Selected References:**

[1] Rao *et al.* (2012) Enzymatic incorporation of an azide-modified UTP analog into oligoribonucleotides for post-transcriptional chemical functionalization. *Nature Protocols* **7** (6):1097.

[2] Rao *et al.* (2012) Posttranscriptional chemical functionalization of azide-modified oligoribonucleotides by bioorthogonal click and Staudinger reactions. *Chem. Commun.* **48** (4):498.

[3] Savant *et al.* (2015) A versatile toolbox for posttranscriptional chemical labeling and imaging of RNA. *Nucleic Acid Res.* doi: 10.1093/nar/gkv903.