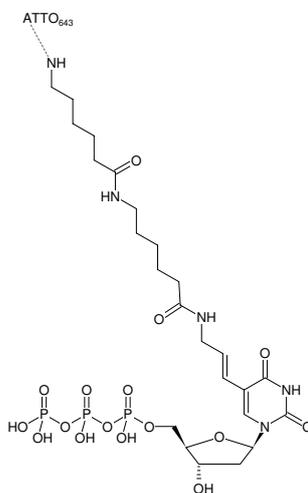




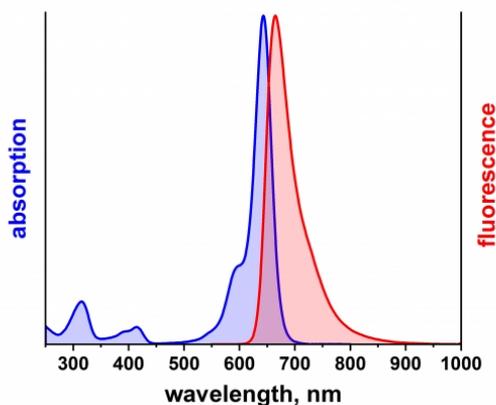
## Aminoallyl-dUTP-XX-ATTO-643

5-(3-Aminoallyl)-2'-deoxyuridine-5'-triphosphate, labeled with ATTO 643, Triethylammonium salt

Cat. No.	Amount
NU-803-XX-643-S	10 µl (1 mM)
NU-803-XX-643-L	5 x 10 µl (1 mM)



Structural formula of Aminoallyl-dUTP-XX-ATTO-643



excitation and emission spectrum of ATTO 643

### 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:** C<sub>24</sub>H<sub>41</sub>N<sub>5</sub>O<sub>16</sub>P<sub>3</sub> - ATTO 643 (free acid)

**Molecular Weight:** 1567.90 g/mol (free acid)

**Purity:** ≥ 95 % (HPLC)

**Form:** filtered solution (30 kDa) in 10 mM Tris-HCl

**Color:** blue

**Concentration:** 1.0 mM - 1.1 mM

**pH:** 7.5 ± 0.5

**Spectroscopic Properties:** λ<sub>exc</sub> 643 nm, λ<sub>em</sub> 665 nm, ε 150.0 L mmol<sup>-1</sup> cm<sup>-1</sup> (Tris-HCl pH 7.5)

### Applications:

Incorporation into DNA/cDNA by

- PCR with *Taq* polymerase in-house data

- Nick Translation with DNase I/ DNA Polymerase I in-house data

### Description:

Aminoallyl-dUTP-XX-643 is recommended for direct enzymatic labeling of DNA/cDNA e.g. by PCR and Nick Translation. It is incorporated as substitute for its natural counterpart dTTP. The resulting Dye-labeled DNA/cDNA probes are ideally suited for fluorescence hybridization applications such as FISH or microarray-based gene expression profiling. Optimal substrate properties and thus labeling efficiency is ensured by an optimized linker attached to the C5 position of uridine. ATTO 643 is a hydrophilic dye with excellent photostability compared to fluorescein.

Recommended Aminoallyl-dUTP-XX-643/dTTP ratio for PCR and Nick Translation: 20-30% Aminoallyl-dUTP-XX-643/ 80-70% dTTP

*Please note: Protect the Dye-labeled dUTP from exposure to light and carry out experimental procedures in low light conditions. The optimal final concentration of the Dye-labeled dUTP may vary depending on the application and assay conditions. For optimal product yields and high incorporation rates an individual optimization of the Dye-labeled-dUTP/dTTP ratio is recommended.*