

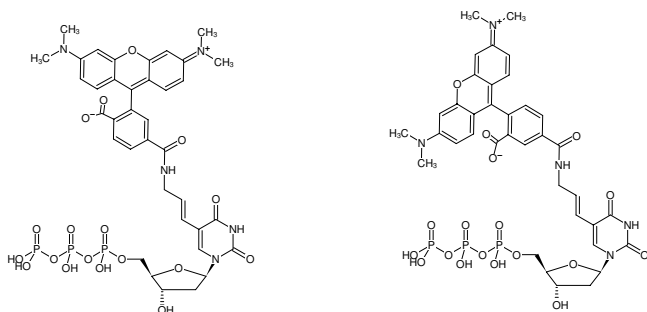


## Aminoallyl-dUTP-5/6-TAMRA

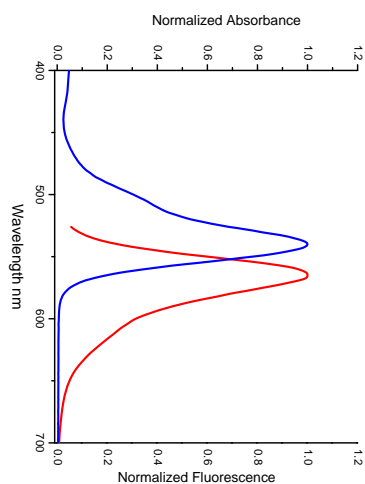
Tetramethyl-Rhodamine-5-dUTP

5-(3-Aminoallyl)-2'-deoxyuridine-5'triphosphate, labeled with 5/6-TAMRA, Triethylammonium salt

Cat. No.	Amount
NU-803-TAM	30 µl (1 mM)



Structural formula of Aminoallyl-dUTP-5/6-TAMRA



excitation and emission spectrum of 5/6-TAMRA

**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>37</sub>H<sub>40</sub>N<sub>5</sub>O<sub>18</sub>P<sub>3</sub> (free acid)

**Molecular Weight:** 935.66 g/mol (free acid)

**Exact Mass:** 935.16 g/mol (free acid)

**Purity:** ≥ 95 % (HPLC)

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

**Color:** pink to red

**Concentration:** 1.0 mM - 1.1 mM

**pH:** 7.5 ± 0.5

**Spectroscopic Properties:** λ<sub>abs</sub> 545 nm, λ<sub>em</sub> 575 nm, ε 90.0 L mmol<sup>-1</sup> cm<sup>-1</sup> (Tris-HCl pH 7.5)

### Applications:

Incorporation into DNA/cDNA by

- Nick Translation with DNase I/ DNA Polymerase I | in-house data, [1,2]

### Description:

Aminoallyl-dUTP-5/6-TAMRA is recommended for direct enzymatic labeling of DNA/cDNA by 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.

Recommended Aminoallyl-dUTP-5/6-TAMRA/dTTP ratio for Nick Translation: 35% Aminoallyl-dUTP-5/6-TAMRA/ 65% 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.*

### Selected References:

[1] Idziak et al. (2014) Insight into the Karyotype Evolution of Brachypodium Species Using Comparative Chromosome Barcoding. *PLoS One* **9**(3):e93503.



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[2] Hasterok *et al.* (2006) Alignment of the Genomes of *Brachypodium distachyon* and Temperate Cereals and Grasses Using Bacterial Artificial Chromosome Landing With Fluorescence in Situ Hybridization. *Genetics* **173**:349.