# DATA SHEET

Jena Bioscience

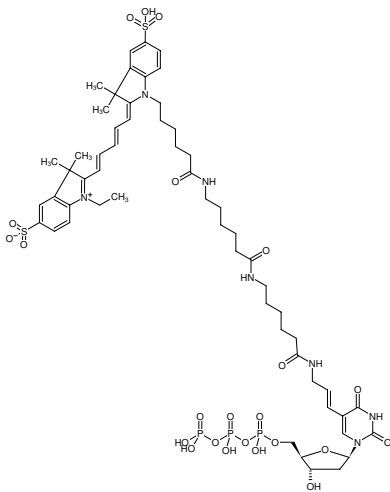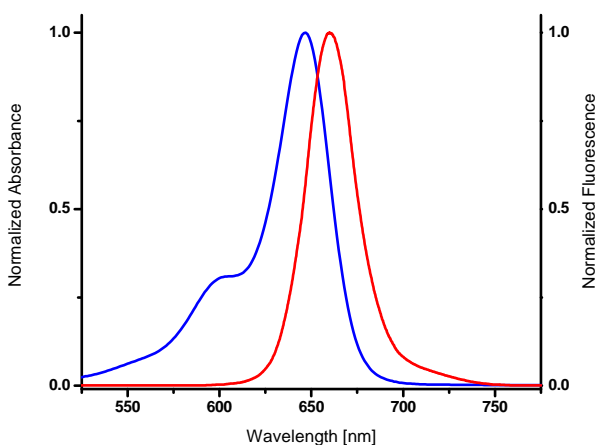## Aminoallyl-dUTP-XX-Cy5

5-(3-Aminoallyl)-2'-deoxyuridine-5'-triphosphate, labeled with Cy5, Triethylammonium salt

| Cat. No. | Amount |
|---|---|
| NU-803-XX-CY5-S | 10 µl (1 mM) |
| NU-803-XX-CY5-L | 5 x 10 µl (1 mM) |



Structural formula of Aminoallyl-dUTP-XX-Cy5



Excitation and Emission spectrum of Cy5

**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:** $C_{57}H_{80}N_7O_{23}P_3S_2$ (free acid)

**Molecular Weight:** 1388.33 g/mol (free acid)

**Exact Mass:** 1387.40 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:** $\lambda_{exc}$ 649 nm, $\lambda_{em}$ 670 nm, ε 250.0 L mmol$^{-1}$ cm$^{-1}$ (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-Cy5 is recommended for direct enzymatic label-ing 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.

Recommended Aminoallyl-dUTP-XX-Cy5/dTTP ratio for PCR and Nick Translation: 20-30% Aminoallyl-dUTP-XX-Cy5/ 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 very depending on the application and assay conditions. For optimal pro-dudct yields and high incorporation rates an individual optimization of the Dye-labeled-dUTP/dTTP ratio is recommended.*