



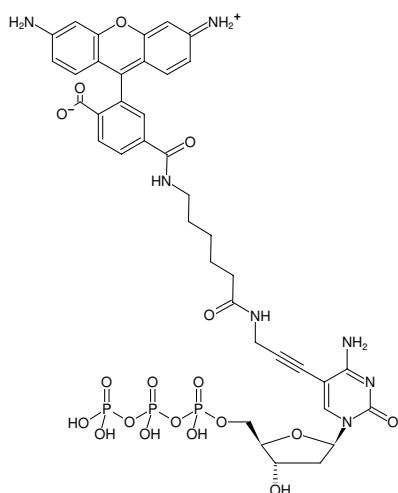
Rhodamine-12-dCTP

Rhodamine-X-5-propargylamino-dCTP

Rho-green-X-dCTP, RhG-dCTP, R110-dCTP

5/6-Rhodamine-X-5-propargylamino-2'-deoxycytidine-5'-triphosphate, Triethylammonium salt

Cat. No.	Amount
NU-809-RHOX-S	10 µl (1 mM)
NU-809-RHOX-L	5 x 10 µl (1 mM)



Structural formula of Rhodamine-12-dCTP

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: C₃₉H₄₂N₇O₁₈P₃ (free acid)

Molecular Weight: 989.71 g/mol (free acid)

Exact Mass: 989.18 g/mol (free acid)

Purity: ≥ 95 % (HPLC)

Form: solution in water

Color: orange

Concentration: 1.0 mM - 1.1 mM

pH: 7.5 ±0.5

Spectroscopic Properties: λ_{exc} 505 nm, λ_{em} 530 nm, ε 85.0 L mmol⁻¹ cm⁻¹ (Tris-HCl pH 7.5)

Applications:

Incorporation into DNA/cDNA by

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

Description:

Rhodamine-12-dCTP is recommended for direct enzymatic labeling of DNA/cDNA by Nick Translation. It is incorporated as substitute for its natural counterpart dCTP. 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 cytidine.

Recommended Rhodamine-12-dCTP/dCTP ratio for Nick Translation: 30-50% Rhodamine-12-dCTP/ 70-50% dCTP

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