

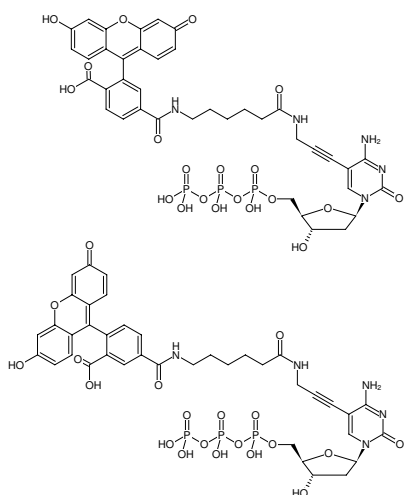


Fluorescein-12-dCTP

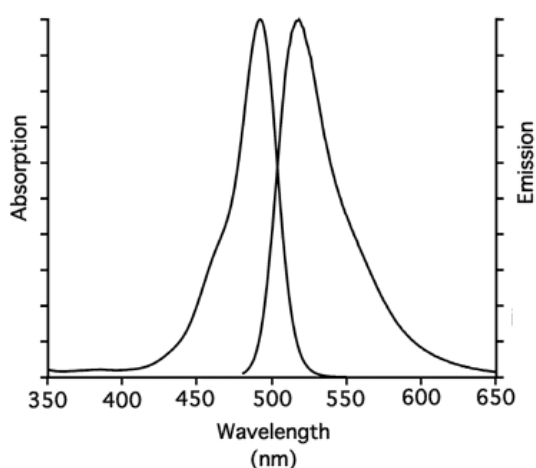
Fluorescein-X-5-Propargylamino-dCTP

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

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



Structural formula of Fluorescein-12-dCTP



excitation and emission spectrum of 5/6-FAM

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: C₃₉H₄₀N₅O₂₀P₃

Molecular Weight: 991.68 g/mol

Exact Mass: 991.15 g/mol

Purity: ≥ 95 % (HPLC)

Form: solution in 10 mM Tris-HCl

Color: yellow-orange

Concentration: 1.0 mM - 1.1 mM

pH: 7.5 ± 0.5

Spectroscopic Properties: λ_{exc} 492 nm, λ_{em} 517 nm, ε 83.0 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:

Fluorescein-12-dCTP 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 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 Fluorescein-12-dCTP/dCTP ratio for PCR and Nick Translation: 30-50% Fluorescein-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.