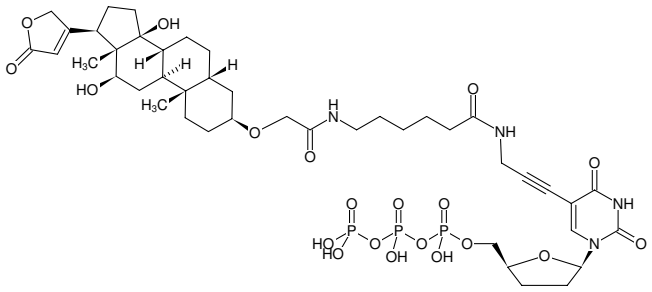
DATA SHEET

Jena Bioscience

DIG-11-ddUTP

Digoxigenin-3-O-methylcarbonyl-ε-aminocaproyl-[5-(3-aminopropargyl)-2',3'-dideoxyuridine-5'-triphosphate], Triethylammoniumsalt

Cat. No.	Amount
NU-1619-DIGX	25 µl (1 mM)



Structural formula of DIG-11-ddUTP

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: $C_{43}H_{63}N_4O_{20}P_3$ (free acid)

Molecular Weight: 1048.91 g/mol (free acid)

Exact Mass: 1048.32 g/mol (free acid)

Purity: ≥ 95 % (HPLC)

Form: solution in water

Color: colorless to slightly yellow

Concentration: 1.0 mM - 1.1 mM

pH: 7.5 ±0.5

Spectroscopic Properties: λ_{max} 290 nm, ε 13.0 L mmol^{-1} cm^{-1} (Tris-HCl pH 7.5)

Description:
Digoxigenin-11-ddUTP is enzymatically incorporated into the 3'-End of oligonucleotides. It acts as a chain terminator leading to the addition of one Digoxigenin label per molecule only. The resulting Digoxigenin-labeled oligonucleotide probes are subsequently detected using Digoxigenin-antibodies conjugated with horseradish peroxidase (HRP), alkaline phosphatase (AP) or a fluorescent dye. Optimal substrate properties and thus labeling efficiency is ensured by a 11-atom linker attached to the C5 position of uridine.

Recommended molar ratio of Digoxigenin-11-ddUTP to free 3'-OH groups: 10:1.

Please note: The optimal final concentration and molar ratio of Digoxigenin-11-ddUTP to free 3'-OH groups may very depending on the application and assay conditions. For optimal incorporation rates an individual optimization of the Digoxigenin-11-ddUTP concentration and molar ratio is recommended.

Selected References:
[1] Schmitz*et al.* (1991) Nonradioactive labeling of oligonucleotides in vitro with the hapten digoxigenin by tailing with terminal transferase. *Anal Biochem***199**:222.