

Product Data Sheet



Biotin-16-dUTP Catalog ID: 210003

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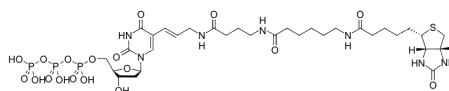
Description

Biotin-modified deoxyuridine 5'-triphosphates (dUTPs) are extensively utilized in non-radioactive DNA labeling techniques such as nick translation, random prime labeling, cDNA labeling, and 3'-end labeling. Biotinylated probes hybridize to complementary nucleic acid sequences at the same rate and efficiency as non-biotinylated probes. Once hybridized, biotinylated DNA probes can be detected using avidin or streptavidin due to their strong affinity for biotin.

Biotin-16-dUTP, in particular, can be enzymatically incorporated into DNA through methods like nick translation, random priming, 3'-end terminal labeling, or PCR. The number "16" refers to the length of the carbon linker between the dUTP and the biotin moiety. A longer linker enhances the interaction between biotin and avidin, while a shorter linker improves the efficiency of dUTP incorporation into DNA. Biotin-16-dUTP is commonly used to generate biotinylated DNA probes for various hybridization applications, including Southern blots, Northern blots, dot blots, and the analysis of fixed cells and tissues.

Chemical Properties

CAS number	136632-31-0
Formula	C ₃₂ H ₅₂ N ₇ O ₁₈ P ₃ S
Molecular Weight	947.78
Concentration	1.0 mM
Solvent	10 mM Tris-HCl, pH 7.6, 1.0 mM EDTA
HPLC Purity	≥95%
λ _{abs} (nm)	NA
λ _{fl} (nm)	NA
ε _{max} (M ⁻¹ cm ⁻¹)	NA



Storage

Upon receipt, store at -20°C in the dark. Protect from light and moisture. When stored as indicated, Biotin-16-dUTP is stable for at least 1 year.

This product is for Research Use Only. Not for Human or Veterinary or Therapeutic Use

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