

Bio-16-UTP

Bio-16-UTP (Biotin-16-uridine-5'-triphosphate) can replace UTP for in vitro transcription reaction catalyzed by T3, T7 or SP6 RNA polymerases. The biotin-labeled RNA transcripts produced by these reactions are suitable for a wide range of applications such as nucleic acid hybridization, sequencing, and genome analysis. The transcription reaction produces multiple RNA copies of the DNA template(s) during a short incubation period. RNA probes offer higher target specificity and greater sensitivity than the corresponding DNA-DNA hybrids. The single-stranded RNA probes offer selectivity unavailable with double-stranded DNA probes, because they are strand-specific. Furthermore, RNA probes hybridize much more efficiently to target molecules than DNA probes because there is no self-hybridization. The biotin-labeled hybridized probes can be detected by a reporter molecule linked to streptavidin, avidin, or anti-biotin antibody. Such a complex can be detected directly, e.g. by excitation of a fluorophore conjugated to streptavidin, or indirectly, e.g. using an enzyme conjugate that can produce an insoluble colored precipitate.

Citations: 1

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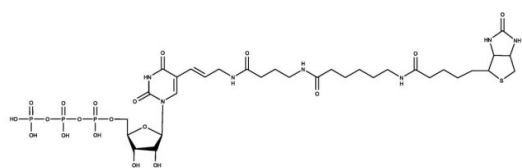
Ordering Information

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ENZ-42814	250nmol
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Manuals, SDS & CofA

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Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended.
Handling	Avoid freeze/thaw cycles.
Long Term Storage	-20°C
Shipping	Dry Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	Biotin-16-uridine-5'-triphosphate
Appearance	Clear, colorless liquid.
Concentration	10mM
Extinction Coefficient	10,700 M ⁻¹ cm ⁻¹ (240 nm, pH 7.0)
Formula	C ₃₂ H ₅₂ N ₇ O ₁₉ P ₃ S
Formulation	Liquid. Solution in water.
MW	963.7 (free acid)
Purity	≥93% (HPLC)
Purity Detail	Contains <5% Bio-16-UDP.

Technical Info / Product Notes

Several of Enzo's products and product applications are covered by US and foreign patents and patents pending.

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