Bio-17-ATP

Bio-17-ATP (Biotin-17-adenosine-5'-triphosphate) can replace ATP 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 slectivity 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 anit-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: 3

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Ordering Information

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ENZ-42817

250nmol

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-17-adenosine-5'-triphosphate

Appearance Clear, colorless liquid.

Concentration 10mM

Extinction Coefficient 18,000 M-1 cm-1 (267 nm, pH 7.0)

Formula $C_{34}H_{57}N_{10}O_{17}P_3S$

Formulation Liquid. Solution in water.

MW 1002.8 (free acid)

Purity ≥93% (HPLC)

Purity Detail Contains <5% Bio-17-ADP.

Technical Info / Product NotesSeveral of Enzo's products and product applications are

covered by US and foreign patents and patents pending.

Last modified: May 29, 2024

