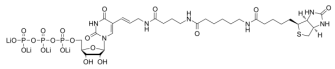
Biotin-16-UTP

Cat. No.:	HY-D1686
CAS No.:	186033-13-6
Molecular Formula:	$C_{32}H_{48}Li_4N_7O_{19}P_3S$
Molecular Weight:	987.51
Target:	DNA Stain
Pathway:	Cell Cycle/DNA Damage
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Biotin-16-UTP is an active substrate for RNA polymerase. Biotin-16-UTP can replace UTP in the in vitro transcription reaction for RNA labeling[1].
In Vitro	Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs). In Vitro RNA Synthesis and Purification: 1. Incubate the cells according to your normal protocol. 2. Add gently One volume of transcription buffer 2x [200 mM KCI, 20 mM Tris-HCI, pH 8.0, 5 mM MgCl2, 4 mM dithiothreitol (DTT), 4 mM each of ATP, GTP and CTP, 200 mM sucrose and 20% glycerol] to nuclei in ice, form mixture. 3. Add 8 µL biotin-16-UTP (from 10 mM tetralithium sal) to the mixture, which is incubated for 30 min at 29°C. 4. Add 6 µL 250 mM CaCl2, 6 µL RNase-free DNase I (10 U/µL) and incubating for 10 min at 29°C to stop reaction. 5. Perform RNA purification of both nuclear run-on and total RNA according to the manufacturer's instructions. 6. Resuspend RNA in 50 uL diethylpyrocarbonate (DEPC)-treated water. 7. Labeled RNA was captured by streptavidin-coated magnetic beads. 8. RNA-binding beads are then used for random hexamer primed reverse transcription. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. G Patrone, et al. Nuclear run-on assay using biotin labeling, magnetic bead capture and analysis by fluorescence-based RT-PCR. Biotechniques. 2000 Nov;29(5):1012-4, 1016-7.

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