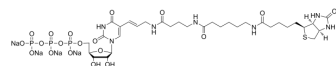


## Biotin-16-UTP tetrasodium

Cat. No.:	HY-D1686B
Molecular Formula:	C <sub>32</sub> H <sub>48</sub> N <sub>7</sub> Na <sub>4</sub> O <sub>19</sub> P <sub>3</sub> S
Molecular Weight:	1051.7
Target:	DNA Stain
Pathway:	Cell Cycle/DNA Damage
Storage:	Solution, -20°C, 2 years



### BIOLOGICAL ACTIVITY

Description	Biotin-16-UTP tetrasodium is an active substrate for RNA polymerase. Biotin-16-UTP tetrasodium can replace UTP in the in vitro transcription reaction for RNA labeling <sup>[1]</sup> .
In Vitro	<p>Guidelines (Following is our recommended protocol. This protocol only provides a guideline, and should be modified according to your specific needs).</p> <p>In Vitro RNA Synthesis and Purification:</p> <ol style="list-style-type: none"> <li>1. Incubate the cells according to your normal protocol.</li> <li>2. Add gently One volume of transcription buffer 2x [200 mM KCl, 20 mM Tris-HCl, pH 8.0, 5 mM MgCl<sub>2</sub>, 4 mM dithiothreitol (DTT), 4 mM each of ATP, GTP and CTP, 200 mM sucrose and 20% glycerol] to nuclei in ice, form mixture.</li> <li>3. Add 8 µL biotin-16-UTP (from 10 mM tetralithium sal) to the mixture, which is incubated for 30 min at 29°C.</li> <li>4. Add 6 µL 250 mM CaCl<sub>2</sub>, 6 µL RNase-free DNase I (10 U/µL) and incubating for 10 min at 29°C to stop reaction.</li> <li>5. Perform RNA purification of both nuclear run-on and total RNA according to the manufacturer's instructions.</li> <li>6. Resuspend RNA in 50 uL diethylpyrocarbonate (DEPC)-treated water.</li> <li>7. Labeled RNA was captured by streptavidin-coated magnetic beads.</li> <li>8. RNA-binding beads are then used for random hexamer primed reverse transcription.</li> </ol> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

**Caution: Product has not been fully validated for medical applications. For research use only.**

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