

## New England Biolabs Certificate of Analysis

**Product Name:** 3'-Desthiobiotin-GTP  
**Catalog Number:** N0761S  
**Concentration:** 5 mM  
**Lot Number:** 10018146  
**Expiration Date:** 08/2021  
**Storage Temperature:** -20°C  
**Specification Version:** PS-N0761S v1.0  
**Composition (1X):** Supplied in Ultrapure water as a Triethylammonium salt (pH 7.0).

3'-Desthiobiotin-GTP Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
N0761SVIAL	3'-Desthiobiotin-GTP	10016929	Pass

Assay Name/Specification	Lot # 10018146
<b>Concentration (A260)</b> The concentration of 3'-Desthiobiotin-GTP is between 5 and 5.5 mM as determined by UV absorption at 260 nm.	Pass
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in NEBuffer 4 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 5 nmoles of 3'-Desthiobiotin-GTP incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<b>Functional Testing (Capping, 3'DTB-GTP)</b> A 20 µl reaction in Capping Buffer containing 0.5 mM 3'-Desthiobiotin-GTP, 0.1 mM SAM, 62.5 ng of a 25 mer RNA transcript, 20 units of Vaccinia Capping Enzyme and 0.05 units of Yeast Inorganic Pyrophosphatase incubated for 30 minutes at 37°C results in >90% capped transcript as determined by gel electrophoresis.	Pass
<b>Physical Purity (HPLC)</b> 3'-Desthiobiotin-GTP is ≥ 95% pure as determined by HPLC analysis.	Pass
<b>RNase Activity (Extended Digestion)</b> A 10 µl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 5 nmoles of 3'-Desthiobiotin-GTP is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass

This product has been tested and shown to be in compliance with all specifications.



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Bhairavi Jani  
Production Scientist  
02 Aug 2018



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Michael Tonello  
Packaging Quality Control Inspector  
03 Aug 2018