

## New England Biolabs Certificate of Analysis

**Product Name:** *Uracil Glycosylase Inhibitor (UGI)*  
**Catalog Number:** M0281L  
**Concentration:** 2,000 U/ml  
**Unit Definition:** One unit of UGI is defined as the amount of protein required to inhibit one unit of *E. coli* UDG in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Packaging Lot Number:** 10203279  
**Expiration Date:** 07/2025  
**Storage Temperature:** -20°C  
**Storage Conditions:** 10 mM Tris-HCl , 50 mM KCl , 1 mM DTT , 0.1 mM EDTA , 200 µg/ml BSA , 50% Glycerol, (pH 7.4 @ 25°C)  
**Specification Version:** PS-M0281S/L v1.0

Uracil Glycosylase Inhibitor (UGI) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0281LVIAL	Uracil Glycosylase Inhibitor (UGI)	10200271	Pass
B0280SVIAL	UDG Reaction Buffer	10164157	Pass

Assay Name/Specification	Lot # 10203279
<p><b>Endonuclease Activity (Nicking)</b>            A 50 µl reaction in NEBuffer 1 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of Uracil Glycosylase Inhibitor (UGI) incubated for 4 hours at 37°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 µl reaction in NEBuffer 1 containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] <i>E. coli</i> DNA and a minimum of 50 units of Uracil Glycosylase Inhibitor (UGI) incubated for 4 hours at 37°C releases &lt;0.1% of the total radioactivity.</p>	Pass
<p><b>Non-Specific DNase Activity (16 Hour)</b>            A 50 µl reaction in NEBuffer 1 containing 1 µg of Lambda DNA and a minimum of 30 units of Uracil Glycosylase Inhibitor (UGI) incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit [www.neb.com/trademarks](http://www.neb.com/trademarks) for additional information.

*Lauren Higgins*

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Lauren Sears Higgins  
Production Scientist  
28 Jul 2023

*Michael Tonello*

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Michael Tonello  
Packaging Quality Control Inspector  
02 Aug 2023