

## New England Biolabs Certificate of Analysis

**Product Name:** *Uracil-DNA Glycosylase (UDG)*  
**Catalog Number:** *M0280L*  
**Concentration:** *5,000 U/ml*  
**Unit Definition:** *One unit is defined as the amount of enzyme that catalyzes the release of 60 pmol of uracil per minute from double-stranded, uracil-containing DNA. Activity is measured by release of [<sup>3</sup>H]-uracil in a 50 µl reaction containing 0.2 µg DNA (10<sup>4</sup>-10<sup>6</sup> cpm/µg) in 30 minutes at 37°C.*  
**Packaging Lot Number:** *10077567*  
**Expiration Date:** *12/2021*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *50 mM KCl , 10 mM Tris-HCl (7.4), 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol , 100 µg/ml BSA*  
**Specification Version:** *PS-M0280S/L v1.0*

Uracil-DNA Glycosylase (UDG) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0280LVIAL	Uracil-DNA Glycosylase (UDG)	10061207	Pass
B0280SVIAL	UDG Reaction Buffer	10049129	Pass

Assay Name/Specification	Lot # 10077567
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 µl reaction in NEBuffer 1.1 containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 50 units of Uracil-DNA Glycosylase (UDG) 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 1.1 containing 1 µg of Lambda-HindIII DNA and a minimum of 50 units of Uracil-DNA Glycosylase (UDG) 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
<p><b>Protein Purity Assay (SDS-PAGE)</b>            Uracil-DNA Glycosylase (UDG) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	Pass

Assay Name/Specification	Lot # 10077567
<p><b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in NEBuffer 1.1 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of Uracil-DNA Glycosylase (UDG) incubated for 4 hours at 37°C results in &lt;10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	<p><b>Pass</b></p>

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



Lauren Higgins  
Production Scientist  
22 Jun 2020



Michael Tonello  
Packaging Quality Control Inspector  
22 Jun 2020