

## New England Biolabs Certificate of Analysis


**Product Name:** *Uracil-DNA Glycosylase (UDG)*  
**Catalog Number:** *M0280S*  
**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:** *10061554*  
**Expiration Date:** *07/2021*  
**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
M0280SVIAL	Uracil-DNA Glycosylase (UDG)	10049128	Pass
B0280SVIAL	UDG Reaction Buffer	10049129	Pass

Assay Name/Specification	Lot # 10061554
<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>	Pass
<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</p>	Pass

Assay Name/Specification	Lot # 10061554
<p>gel electrophoresis.</p> <p><b>Protein Purity Assay (SDS-PAGE)</b>            Uracil-DNA Glycosylase (UDG) is <math>\geq 95\%</math> pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	<p><b>Pass</b></p>

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



Lauren Sears Higgins  
Production Scientist  
11 Jul 2019



Jay Minichiello  
Packaging Quality Control Inspector  
19 Dec 2019