

## 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 required to release 60 pmol per minute of a fluorescently labeled 47-mer single-stranded DNA oligonucleotide containing a single uracil base in 30 minutes at 37°C in a total reaction volume of 50 µl in 1X UDG Buffer.*  
**Packaging Lot Number:** *10225897*  
**Expiration Date:** *01/2026*  
**Storage Temperature:** *-20°C*  
**Storage Conditions:** *50 mM KCl , 10 mM Tris-HCl, 1 mM DTT , 0.1 mM EDTA , 50 % Glycerol , 100 µg/ml rAlbumin (pH 7.4 @ 25°C)*  
**Specification Version:** *PS-M0280S/L v2.0*

Uracil-DNA Glycosylase (UDG) Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0280SVIAL	Uracil-DNA Glycosylase (UDG)	10225522	Pass
B0280SVIAL	UDG Reaction Buffer	10211317	Pass

Assay Name/Specification	Lot # 10225897
<p><b>Endonuclease Activity (Nicking)</b>            A 50 µl reaction in NEBuffer™ r1.1 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>	<b>Pass</b>
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 µl reaction in NEBuffer™ r1.1 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>	<b>Pass</b>
<p><b>Non-Specific DNase Activity (16 Hour)</b>            A 50 µl reaction in NEBuffer™ r1.1 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>	<b>Pass</b>


Assay Name/Specification	Lot # 10225897
<b>Protein Purity Assay (SDS-PAGE)</b> Uracil-DNA Glycosylase (UDG) is $\geq$ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	<b>Pass</b>

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

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08 Jan 2024



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17 Jan 2024