

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 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: *10246068*
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
M0280LVIAL	Uracil-DNA Glycosylase (UDG)	10225520	Pass
B0280SVIAL	UDG Reaction Buffer	10211317	Pass

Assay Name/Specification	Lot # 10246068
<p>Endonuclease Activity (Nicking) 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 <10% conversion to the nicked form as determined by agarose gel electrophoresis.</p>	Pass
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer™ r1.1 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 50 units of Uracil-DNA Glycosylase (UDG) incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) 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>	Pass

Assay Name/Specification	Lot # 10246068
<p>Protein Purity Assay (SDS-PAGE) Uracil-DNA Glycosylase (UDG) is $\geq 95\%$ pure as determined by SDS-PAGE analysis using Coomassie Blue detection.</p>	<p>Pass</p>

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 for additional information.



Nicole Castagnozzi
Production Scientist
08 Jan 2024



Josh Hersey
Packaging Quality Control Inspector
02 Aug 2024