

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: *10250291*
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 # 10250291 |
|---|----------------|
| <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 # 10250291 |
|--|----------------|
| Protein Purity Assay (SDS-PAGE) Uracil-DNA Glycosylase (UDG) is \geq 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection. | 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 for additional information.



Nicole Castagnozzi
Production Scientist
08 Jan 2024



Michael Tonello
Packaging Quality Control Inspector
31 Jul 2024