

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 [³H]-uracil in a 50 µl reaction containing 0.2 µg DNA (10⁴-10⁶ cpm/µg) in 30 minutes at 37°C.*
Packaging Lot Number: *10092226*
Expiration Date: *09/2022*
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) | 10081986 | Pass |
| B0280SVIAL | UDG Reaction Buffer | 10084484 | Pass |

| Assay Name/Specification | Lot # 10092226 |
|---|----------------|
| <p>Endonuclease Activity (Nicking) 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 <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 1.1 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 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 # 10092226 |
|--|--------------------|
| <p>gel electrophoresis.</p> <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.

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Lauren Higgins
Production Scientist
06 Jan 2021



Michael Tonello
Packaging Quality Control Inspector
06 Jan 2021