

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: *10056012*
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 # 10056012 |
|--|----------------|
| Protein Purity Assay (SDS-PAGE) Uracil-DNA Glycosylase (UDG) is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection. | Pass |
| 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 gel electrophoresis. | Pass |
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 1.1 containing 1 µg of a mixture of single and double-stranded [³ H] 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. | Pass |

| Assay Name/Specification | Lot # 10056012 |
|--|--------------------|
| <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> | <p>Pass</p> |

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

Lauren Higgins

Lauren Sears Higgins
Production Scientist
11 Jul 2019

Jay Minichiello

Jay Minichiello
Packaging Quality Control Inspector
16 Oct 2019