

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 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: *10130004*
Expiration Date: *10/2023*
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
M0280LVIAL	Uracil-DNA Glycosylase (UDG)	10124166	Pass
B0280SVIAL	UDG Reaction Buffer	10116764	Pass

Assay Name/Specification	Lot # 10130004
<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 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>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</p>	Pass

Assay Name/Specification	Lot # 10130004
<p>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
08 Dec 2021



Josh Hersey
Packaging Quality Control Inspector
08 Dec 2021