NEW ENGLAND BioLabs Inc.
be INSPIRED drive DISCOVERY stay GENUINE
240 County Road
Ipswich, MA 01938-2723
Tel 978-927-5054
Fax 978-921-1350
www.neb.com
info@neb.com

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 [^{3}H]-uracil in a 50 µl reaction containing 0.2 µg DNA (10^4-10^5 cpm/µg) in 30 minutes at 37°C.*
Lot Number:	*10050535*
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**
M0280LVIAL	Uracil-DNA Glycosylase (UDG)	10049127	**Pass**
B0280SVIAL	UDG Reaction Buffer	10049129	**Pass**

Assay Name/Specification	**Lot # 10050535**
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.	**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 37ºC releases <0.1% of the total radioactivity.	**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 37ºC results in a DNA pattern free of detectable nuclease degradation as determined by agarose	**Pass**

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Assay Name/Specification	Lot # 10050535
gel electrophoresis. **Protein Purity Assay (SDS-PAGE)** Uracil-DNA Glycosylase (UDG) is ≥ 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.

Lauren Sears Higgins
Production Scientist
11 Jul 2019

Michael Tonello
Packaging Quality Control Inspector
03 Sep 2019