

## New England Biolabs Certificate of Analysis

**Product Name:** hSMUG1  
**Catalog Number:** M0336S  
**Concentration:** 5,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to excise 1 pmol of deoxyuracil from a 34-mer oligonucleotide duplex containing a single dU site in a total reaction volume of 10 µl in 1 hour at 37°C.  
**Packaging Lot Number:** 10061092  
**Expiration Date:** 08/2021  
**Storage Temperature:** -20°C  
**Storage Conditions:** 10 mM Tris-HCl, 250 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50 % Glycerol, 0.15 % Triton®X-100, 200 µg/ml BSA, (pH 7.4 @ 25°C)  
**Specification Version:** PS-M0336S/L v1.0

hSMUG1 Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
M0336SVIAL	hSMUG1	10061091	Pass
B9001SVIAL	Purified BSA	10014762	Pass
B7001SVIAL	NEBuffer™ 1	10041625	Pass

Assay Name/Specification	Lot # 10061092
<b>Endonuclease Activity (Nicking)</b> A 50 µl reaction in NEBuffer 1 containing 1 µg of supercoiled PhiX174 DNA and a minimum of 50 units of hSMUG1 incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in NEBuffer 1 containing 1 µg of Lambda-HindIII DNA and a minimum of 50 units of hSMUG1 incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
<b>Protein Purity Assay (SDS-PAGE)</b> hSMUG1 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.



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Tony Spear-Alfonso  
Production Scientist  
12 Sep 2018



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Michael Tonello  
Packaging Quality Control Inspector  
26 Nov 2019