

New England Biolabs Certificate of Analysis

Product Name: Swal
Catalog Number: R0604L
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of pXba DNA in 1 hour at 25°C in a total reaction volume of 50 µl.
Packaging Lot Number: 10115119
Expiration Date: 07/2023
Storage Temperature: -20°C
Storage Conditions: 10 mM Tris-HCl, 400 mM NaCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml rAlbumin (pH 7.4 @ 25°C)
Specification Version: PS-R0604S/L/V v3.0

Swal Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0604LVIAL	Swal	10115117	Pass
B6003SVIAL	NEBuffer™ r3.1	10110766	Pass

Assay Name/Specification	Lot # 10115119
<p>qPCR DNA Contamination (E. coli Genomic) A minimum of 1 µl of Swal is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.</p>	Pass
<p>Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer™ r3.1 containing 1 µg of pXba DNA and a minimum of 100 units of Swal incubated for 16 hours at 25°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.</p>	Pass
<p>Ligation and Recutting (Terminal Integrity) After a 20-fold over-digestion of pXba-NdeI DNA with Swal, ~75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~75% can be recut with Swal.</p>	Pass
<p>Functional Testing (15 minute Digest) A 50 µl reaction in NEBuffer™ r3.1 containing 1 µg of pXba DNA and 1 µl of Swal incubated for 15 minutes at 25°C results in complete digestion as determined by</p>	Pass

Assay Name/Specification	Lot # 10115119
<p>agarose gel electrophoresis.</p> <p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer™ r3.1 containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 100 units of Swal incubated for 4 hours at 25°C releases <0.1% of the total radioactivity.</p>	<p>Pass</p>

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.



Penghua Zhang
Production Scientist
19 Jul 2021



Michael Tonello
Packaging Quality Control Inspector
19 Jul 2021