

## New England Biolabs Certificate of Analysis

**Product Name:** AsiSI  
**Catalog Number:** R0630S  
**Concentration:** 10,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of XhoI digested pXba in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Packaging Lot Number:** 10205134  
**Expiration Date:** 12/2024  
**Storage Temperature:** -20°C  
**Storage Conditions:** 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA  
**Specification Version:** PS-R0630S/L v1.0

AsiSI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0630SVIAL	AsiSI	10192023	Pass
B7024AVIAL	Gel Loading Dye, Purple (6X)	10198639	Pass
B6004SVIAL	rCutSmart™ Buffer	10198645	Pass

Assay Name/Specification	Lot # 10205134
<p><b>Exonuclease Activity (Radioactivity Release)</b>            A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [<sup>3</sup>H] E. coli DNA and a minimum of 10 units of AsiSI incubated for 4 hours at 37°C releases &lt;0.2% of the total radioactivity.</p>	Pass
<p><b>Ligation and Recutting (Terminal Integrity)</b>            After a 2-fold over-digestion of pXbaI (Xho digested) DNA with AsiSI, ~75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, &gt;95% can be recut with AsiSI.</p>	Pass
<p><b>Non-Specific DNase Activity (16 hour)</b>            A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pXbaI (Xho digested) DNA and a minimum of 10 Units of AsiSI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. NOTE: although no nuclease degradation is detected under these conditions, extended incubations and/or high concentrations of this enzyme may result in star activity. See the product FAQ for recommended reaction conditions for</p>	Pass

Assay Name/Specification	Lot # 10205134
this enzyme.	

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](http://www.neb.com/trademarks) for additional information.

  
YunJie Sun  
Production Scientist  
02 Jun 2023

  
Michael Tonello  
Packaging Quality Control Inspector  
29 Aug 2023