

## New England Biolabs Certificate of Analysis

**Product Name:** I-SceI  
**Catalog Number:** R0694S  
**Concentration:** 5,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to cleave 1 µg of pGPS2 NotI-linearized Control Plasmid in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Lot Number:** 10050598  
**Expiration Date:** 04/2021  
**Storage Temperature:** -80°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-R0694S/L v1.0

I-SceI Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0694SVIAL	I-SceI	10043036	Pass
N0420SVIAL	pGPS2 NotI-linearized Control Plasmid	10043037	Pass
B7204SVIAL	CutSmart® Buffer	10046087	Pass

Assay Name/Specification	Lot # 10050598
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pGPS2-NotI DNA and a minimum of 50 units of I-SceI 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>Endonuclease Activity (Nicking)</b> A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 15 units of I-SceI incubated for 4 hours at 37°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
<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 50 units of I-SceI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 10-fold over-digestion of pGPS2-NotI DNA with I-SceI, >95% of the DNA	Pass

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fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, >95% can be recut with I-SceI.	

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



Jianying Luo  
Production Scientist  
23 Apr 2019



Jay Minichiello  
Packaging Quality Control Inspector  
15 Aug 2019