

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.
Packaging Lot Number: 10072122
Expiration Date: 12/2021
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	10061112	Pass
N0420SVIAL	pGPS2 NotI-linearized Control Plasmid	10064703	Pass
B7204SVIAL	CutSmart® Buffer	10074633	Pass

Assay Name/Specification	Lot # 10072122
Non-Specific DNase Activity (16 Hour) 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
Endonuclease Activity (Nicking) 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
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of pGPS2-NotI DNA with I-SceI, >95% of the DNA 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.	Pass
Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and	Pass

Assay Name/Specification	Lot # 10072122
double-stranded [³ 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.	

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


Penghua Zhang
Production Scientist
12 Jun 2020


Michael Tonello
Packaging Quality Control Inspector
12 Jun 2020