

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: 10030587
Expiration Date: 11/2020
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 | 10030588 | Pass |
| N0420SVIAL | pGPS2 NotI-linearized Control Plasmid | 10030586 | Pass |
| B7204SVIAL | CutSmart® Buffer | 10021126 | Pass |


| Assay Name/Specification | Lot # 10030587 |
|---|----------------|
| 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 |
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and 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. | 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 |
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pGPS2-NotI DNA and a minimum | Pass |

| Assay Name/Specification | Lot # 10030587 |
|---|----------------|
| 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. | |

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



Jianying Luo
Production Scientist
29 Nov 2018



Michael Tonello
Packaging Quality Control Inspector
11 Dec 2018