

New England Biolabs Certificate of Analysis

Product Name: XcmI
Catalog #: R0533S/L
Concentration: 5,000 units/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of Lambda DNA in 1 hour at 37°C in a total reaction volume of 50 µl.
Lot #: 0171504
Assay Date: 04/2015
Expiration Date: 4/2017
Storage Temp: -20°C
Storage Conditions: 250 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 0.15% Triton X-100, 200 µg/ml BSA
Specification Version: PS-R0533S/L v1.0
Effective Date: 08 Jan 2014

| Assay Name/Specification (minimum release criteria) | Lot #0171504 |
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| Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in NEBuffer 2.1 containing 1 µg of a mixture of single and double-stranded [³ H] <i>E. coli</i> DNA and a minimum of 50 units of XcmI 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 Lambda DNA with XcmI, ~25% 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 XcmI. | Pass |
| Non-Specific DNase Activity (16 hour) - A 50 µl reaction in NEBuffer 2.1 containing 1 µg of Lambda DNA and a minimum of 5 Units of XcmI 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 this enzyme. | Pass |

* The BSA in this product has been granted an EDQM "Certificate of Suitability" from the European Directorate for the Quality of Medicines (# R1-CEP-2003-204-Rev00) and has been granted a USDA Certificate for Export of Bovine Blood Plasma/Serum for Manufacture into Pharmaceutical Products.



Authorized by
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08 Jan 2014



Inspected by
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10 Apr 2015

