240 County Road
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New England Biolabs
Certificate of Analysis

Product Name:	*XcmI*
Catalog Number:	*R0533S*
Concentration:	*5,000 U/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.*
Packaging Lot Number:	*10242013*
Expiration Date:	*09/2025*
Storage Temperature:	*-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*

XcmI Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
R0533SVIAL	XcmI	10206397	**Pass**
B6002SVIAL	NEBuffer™ r2.1	10231025	**Pass**

Assay Name/Specification	**Lot # 10242013**
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] E. coli DNA and a minimum of 50 units of XcmI incubated for 4 hours at 37ºC 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 16ºC. 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 37ºC 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**

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

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22 Sep 2023

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30 May 2024