

New England Biolabs Certificate of Analysis

Product Name: *BlpI*
Catalog Number: R0585L
Concentration: 10,000 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: 10104621
Expiration Date: 02/2023
Storage Temperature: -20°C
Storage Conditions: 50 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA
Specification Version: PS-R0585S/L v1.0

| BlpI Component List | | | |
|---------------------|-----------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0585LVIAL | BlpI | 10099286 | Pass |
| B6004SVIAL | rCutSmart™ Buffer | 10107576 | Pass |

| Assay Name/Specification | Lot # 10104621 |
|--|----------------|
| Protein Purity Assay (SDS-PAGE) BlpI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection. | 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 100 units of BlpI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity. | Pass |
| Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 30 units of BlpI incubated for 4 hours at 37°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis. | Pass |
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 10 units of BlpI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. | Pass |
| Ligation and Recutting (Terminal Integrity) | Pass |

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|---|----------------|
| After a 10-fold over-digestion of Lambda DNA with BlnI, >95% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~75% can be recut with BlnI. | |

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

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Production Scientist
26 May 2021


Josh Hersey
Packaging Quality Control Inspector
26 May 2021