

New England Biolabs Certificate of Analysis

Product Name: *BlpI*
Catalog Number: *R0585S*
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: *10143362*
Expiration Date: *03/2024*
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 |
| R0585SVIAL | BlpI | 10143358 | Pass |
| B6004SVIAL | rCutSmart™ Buffer | 10143289 | Pass |

| Assay Name/Specification | Lot # 10143362 |
|--|----------------|
| Protein Purity Assay (SDS-PAGE) BlpI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection. | Pass |
| Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of Lambda DNA with BlpI, >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 BlpI. | 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 |
| 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 |
| Exonuclease Activity (Radioactivity Release) | Pass |

| Assay Name/Specification | Lot # 10143362 |
|---|----------------|
| 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 BlnI 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.

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14 Apr 2022



Michael Tonello
Packaging Quality Control Inspector
14 Apr 2022