

New England Biolabs Certificate of Analysis


Product Name: Bccl
Catalog Number: R0704S
Concentration: 10,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of pXba DNA in 1 hour at 37°C in a total reaction volume of 50 µl.
Lot Number: 10047399
Expiration Date: 06/2021
Storage Temperature: -20°C
Storage Conditions: 50 mM KCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA
Specification Version: PS-R0704S/L v2.0

| Bccl Component List | | | |
|---------------------|-----------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| R0704SVIAL | Bccl | 10047401 | Pass |
| B7204SVIAL | CutSmart® Buffer | 10043351 | Pass |

| Assay Name/Specification | Lot # 10047399 |
|---|----------------|
| <p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [³H] E. coli DNA and a minimum of 10 units of Bccl incubated for 4 hours at 37°C releases <0.3% of the total radioactivity.</p> | Pass |
| <p>Ligation and Recutting (Terminal Integrity) After a 2-fold over-digestion of pXba DNA with Bccl, ~50% 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 Bccl.</p> | Pass |
| <p>Non-Specific DNase Activity (16 hour) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pXba DNA and a minimum of 10 Units of Bccl 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.</p> | Pass |
| <p>Protein Purity Assay (SDS-PAGE)</p> | Pass |

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|--|----------------|
| Bccl is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection. | |

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



Doreen Duquette
Production Scientist
21 May 2019



Jay Minichiello
Packaging Quality Control Inspector
24 Jun 2019