

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 rCutSmart Buffer supplemented with 2 mM DTT in 1 hour at 37°C in a total reaction volume of 50 µl.*
Packaging Lot Number: *10252570*
Expiration Date: *06/2026*
Storage Temperature: *-20°C*
Storage Conditions: *50mM NaOAc, 500mM NaCl, 0.1mM EDTA, 0.1mM TCEP, 50% Glycerol, 200 ug/ml rAlbumin (pH 6.0 @ 25°C)*
Specification Version: *PS-R0704S/L/V v3.0*

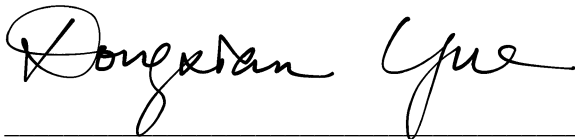
Bccl Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0704SVIAL	Bccl	10251906	Pass
B6004SVIAL	rCutSmart™ Buffer	10245416	Pass
B1222AVIAL	0.1M DTT	10242838	Pass

Assay Name/Specification	Lot # 10252570
<p>Exonuclease Activity (Radioactivity Release) A 50 µl reaction in rCutSmart™ 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 rCutSmart™ 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

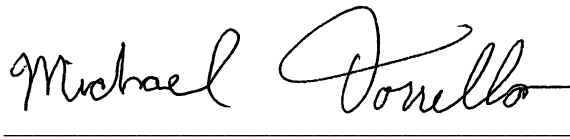
Assay Name/Specification	Lot # 10252570
<p>Protein Purity Assay (SDS-PAGE) Bccl is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.</p>	Pass
<p>qPCR DNA Contamination (E. coli Genomic) A minimum of 10 units of Bccl is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.</p>	Pass

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

One or more products referenced in this document may be covered by a 3rd-party trademark. Please visit www.neb.com/trademarks for additional information.



Dongxian Yue
Production Scientist
28 May 2024



Michael Tonello
Packaging Quality Control Inspector
20 Aug 2024