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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: 10023140
Expiration Date: 09/2020
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

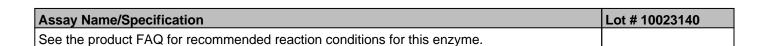
Bccl Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R0704SVIAL	Bccl	10023141	Pass	
B7204SVIAL	CutSmart® Buffer	10018444	Pass	

Assay Name/Specification	Lot # 10023140
Protein Purity Assay (SDS-PAGE)	Pass
Bccl is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	
Exonuclease Activity (Radioactivity Release)	Pass
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.	
Ligation and Recutting (Terminal Integrity)	Pass
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.	
can be recut with BCCI.	
Non-Specific DNase Activity (16 hour)	Pass
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.	



R0704S / Lot: 10023140

Page 1 of 2



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

Tony Spear-Alfonso **Production Scientist**

17 Sep 2018

Michael Tonello

Packaging Quality Control Inspector

03 Oct 2018

