NEW ENGLAND BioLabs Inc.
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240 County Road
Ipswich, MA 01938-2723
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New England Biolabs
Certificate of Analysis

Product Name:	*BccI*
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.*
Packaging Lot Number:	*10130945*
Expiration Date:	*12/2023*
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*

BccI Component List			
NEB Part Number	**Component Description**	**Lot Number**	**Individual QC Result**
R0704SVIAL	BccI	10130944	**Pass**
B6004SVIAL	rCutSmart™ Buffer	10128416	**Pass**

Assay Name/Specification	**Lot # 10130945**
Protein Purity Assay (SDS-PAGE) BccI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	**Pass**
Ligation and Recutting (Terminal Integrity) After a 2-fold over-digestion of pXba DNA with BccI, ~50% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16ºC. Of these ligated fragments, >95% can be recut with BccI.	**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 10 units of BccI incubated for 4 hours at 37ºC releases <0.3% of the total radioactivity.	**Pass**
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 BccI incubated for 16 hours at 37ºC 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.	**Pass**

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Assay Name/Specification	Lot # 10130945
See the product FAQ for recommended reaction conditions for this enzyme.	

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.

Penghua Zhang
Production Scientist
24 Jan 2022

Michael Tonello
Packaging Quality Control Inspector
24 Jan 2022