

## New England Biolabs Certificate of Analysis

**Product Name:** CviAll  
**Catalog Number:** R0640S  
**Concentration:** 10,000 U/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of pUC19 DNA in 1 hour at 25°C in a total reaction volume of 50 µl.  
**Lot Number:** 10033945  
**Expiration Date:** 02/2020  
**Storage Temperature:** -20°C  
**Storage Conditions:** 10 mM Tris-HCl, 250 mM NaCl, 10 mM TCEP-HCl, 1 mM DTT, 0.1 mM EDTA, 0.15% Triton®X-100, 50% Glycerol, 200 µg/ml BSA, (pH 7.4 @ 25°C)  
**Specification Version:** PS-R0640S/L v2.0

CviAll Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0640SVIAL	CviAll	10033946	Pass
B7204SVIAL	CutSmart® Buffer	10021124	Pass

Assay Name/Specification	Lot # 10033945
<b>Exonuclease Activity (Radioactivity Release)</b> A 50 µl reaction in CutSmart® Buffer containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] E. coli DNA and a minimum of 10 units of CviAll incubated for 4 hours at 25°C releases <0.1% of the total radioactivity.	Pass
<b>Ligation and Recutting (Terminal Integrity)</b> After a 10-fold over-digestion of pUC19 DNA with CviAll, >95% 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 CviAll.	Pass
<b>Non-Specific DNase Activity (16 Hour)</b> A 50 µl reaction in CutSmart® Buffer containing 1 µg of pUC19 DNA and a minimum of 30 units of CviAll incubated for 16 hours at 25°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass

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



Tony Spear-Alfonso  
Production Scientist  
24 Jan 2019



Josh Hersey  
Packaging Quality Control Inspector  
01 Feb 2019