

New England Biolabs Certificate of Analysis

Product Name: NgoMIV
Catalog Number: R0564L
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: 10071124
Expiration Date: 04/2022
Storage Temperature: -20°C
Storage Conditions: 50 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/ml BSA
Specification Version: PS-R0564S/L v2.0

NgoMIV Component List			
NEB Part Number	Component Description	Lot Number	Individual QC Result
R0564LVIAL	NgoMIV	10071123	Pass
B7204SVIAL	CutSmart® Buffer	10071077	Pass

Assay Name/Specification	Lot # 10071124
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of pXba DNA with NgoMIV, >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 NgoMIV.	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 NgoMIV incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled pUC19 DNA and a minimum of 10 units of NgoMIV incubated for 4 hours at 37°C results in <20% conversion to the nicked form as determined by agarose gel electrophoresis.	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 100 units of NgoMIV incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass

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



Penghua Zhang
Production Scientist
16 Apr 2020



Jay Minichiello
Packaging Quality Control Inspector
16 Apr 2020