

240 County Road Ipswich, MA 01938-2723 Tel 978-927-5054 Fax 978-921-1350 www.neb.com info@neb.com

New England Biolabs Certificate of Analysis

Product Name: Afel
Catalog Number: R0652L
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: 10071117
Expiration Date: 12/2021
Storage Temperature: -20°C

Storage Conditions: 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50%

Glycerol, 500 μg/ml BSA

Specification Version: PS-R0652S/L v1.0

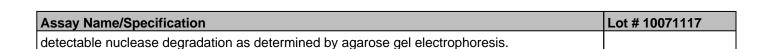
Afel Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
R0652LVIAL	Afel	10061245	Pass	
B7204SVIAL	CutSmart® Buffer	10071078	Pass	
B7024SVIAL	Gel Loading Dye, Purple (6X)	10065747	Pass	

Assay Name/Specification	Lot # 10071117
Endonuclease Activity (Nicking) A 50 µl reaction in CutSmart™ Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 Units of Afel incubated for 4 hours at 37°C results in <20%	Pass
conversion to the nicked form as determined by agarose gel electrophoresis.	_
Exonuclease Activity (Radioactivity Release) 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 100 units of Afel incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Ligation and Recutting (Terminal Integrity) After a 10-fold over-digestion of pXba DNA with Afel, >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 Afel.	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 Afel incubated for 16 hours at 37°C results in a DNA pattern free of	Pass



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

Penghua Zhang Production Scientist

01 May 2020

Jay Minichiello

Packaging Quality Control Inspector

01 May 2020

