

be INSPIRED *drive* DISCOVERY *stay* GENUINE

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:	Taq DNA Ligase
Catalog Number:	M0208L
Concentration:	40,000 U/ml
Unit Definition:	One unit is defined as the amount of enzyme required to give 50% ligation of the 12-base pair cohesive ends of 1 μ g of BstEII-digested Lambda DNA in a total reaction volume of 50 μ l in 15 minutes at 45°C.
Packaging Lot Number:	10065582
Expiration Date:	02/2022
Storage Temperature:	-20°C
Storage Conditions:	10 mM Tris-HCl , 50 mM KCl , 1 mM DTT , 0.1 mM EDTA , 200 μg/ml BSA , 50 % Glycerol, (pH 7.4 @ 25°C)
Specification Version:	PS-M0208S/L v2.0

Taq DNA Ligase Component List				
NEB Part Number	Component Description	Lot Number	Individual QC Result	
M0208LVIAL	Taq DNA Ligase	10065580	Pass	
B0208SVIAL	Taq DNA Ligase Reaction Buffer	10042800	Pass	

Assay Name/Specification	Lot # 10065582
Endonuclease Activity (Nicking) A 50 μ I reaction in NEBuffer 4 containing 1 μ g of supercoiled PhiX174 DNA and a minimum of 400 units of Taq DNA Ligase incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.	Pass
Exonuclease Activity (Radioactivity Release) A 50 μl reaction in Taq DNA Ligase Reaction Buffer containing 1 μg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 400 units of Taq DNA Ligase incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	Pass
Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 4 containing 1 µg of Lambda-HindIII DNA and a minimum of 80 units of Taq DNA Ligase incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	Pass
Protein Purity Assay (SDS-PAGE)	Pass





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Assay Name/Specification	Lot # 10065582
Taq DNA Ligase is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection.	
qPCR DNA Contamination (E. coli Genomic) A minimum of 40 units of Taq DNA Ligase is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.	Pass
RNase Activity (Extended Digestion) A 10 μl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 1 μl of Taq DNA Ligase is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.	Pass

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

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Mary Lorenzen Production Scientist 06 Mar 2020

Josh Hersey

Packaging Quality Control Inspector 17 Mar 2020

