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New England Biolabs
Product Specification

Product Name:	*Taq DNA Ligase Reaction Buffer*
Catalog #:	*B0208S*
Concentration:	*10X Concentrate*
Shelf Life:	*36 months*
Storage Temp:	*-20°C*
Composition (1X):	*20 mM Tris-HCl, 25 mM Potassium Acetate , 10 mM Magnesium Acetate, 1 mM NAD+, 10 mM DTT, 0.1% Triton®X-100, (pH 7.6 @ 25°C)*
Specification Version:	*PS-B0208S v1.0*
Effective Date:	*18 May 2018*

Assay Name/Specification (minimum release criteria)
Endonuclease Activity (Nicking, Buffer) - A 50 µl reaction in 1X *Taq* DNA Ligase Reaction Buffer containing 1 µg of supercoiled PhiX174 DNA incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.
Functional Testing (DNA Ligase Buffer) - A 50 µl reaction in 1X *Taq* DNA Ligase Reaction Buffer containing 1 µg of BstEII digested Lambda DNA and 1 unit of *Taq* DNA Ligase incubated for 15 minutes at 45°C results in approximately 50% ligation of the cohesive ends of the DNA fragments as determined by agarose gel electrophoresis.
Non-Specific DNase Activity (16 hour, Buffer) - A 50 µl reaction in 1X *Taq* DNA Ligase Reaction Buffer containing 1 µg of HaeIII digested PhiX174 RF I DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.
RNase Activity (Buffer) - A 10 µl reaction in 1X *Taq* DNA Ligase Reaction Buffer containing 40 ng of a 300 base single-stranded RNA is incubated at 37°C. After incubation for 4 hours, >90% of the substrate RNA remains intact as determined by polyacrylamide gel electrophoresis.

Date 18 May 2018

Derek Robinson
Director of Quality Control

ISO 9001 Registered Quality Management
ISO 14001 Registered Environmental Management
ISO 13485 Registered Medical Devices