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New England Biolabs
Product Specification

Product Name:	*NEBNext® dsDNA Fragmentase® Reaction Buffer v2*
Catalog #:	*B0349S*
Concentration:	*10X Concentrate*
Shelf Life:	*24 months*
Storage Temp:	*-20°C*
Composition (1X):	*20 mM Tris-HCl, 15 mM $MgCl_2$, 50 mM NaCl, 0.15% Triton®X-100, 0.1 mg/ml BSA, (pH 7.5 @ 25°C)*
Specification Version:	*PS-B0349S v1.0*
Effective Date:	*10 Aug 2018*

Assay Name/Specification (minimum release criteria)
Endonuclease Activity (Nicking, Buffer) - A 50 µl reaction in 1X NEBNext® dsDNA Fragmentase® Reaction Buffer v2 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.
Non-Specific DNase Activity (16 hour, Buffer) - A 50 µl reaction in 1X NEBNext® dsDNA Fragmentase® Reaction Buffer v2 containing 1 µg of T3 DNA in addition to a reaction containing Lambda-HindIII DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.
Phosphatase Activity (pNPP, Buffer) - A 200 µl reaction in 1M Diethanolamine @ pH 9.8 and 0.5 mM $MgCl_2$ containing 2.5 mM *p*-Nitrophenyl Phosphate (pNPP) and a minimum of 20 µl NEBNext® dsDNA Fragmentase® Reaction Buffer v2 incubated for 4 hours at 37°C yields <0.00001 unit of alkaline phosphatase activity as determined by spectrophotometric analysis.
Protease Activity (SDS-PAGE, Buffer) - A 30 µl reaction in 1X NEBNext® dsDNA Fragmentase® Reaction Buffer v2 incubated with 24 µg of a standard mixture of proteins for 20 hours at 37°C resulted in no proteolytic activity detected by SDS-PAGE.

Date 10 Aug 2018

Derek Robinson
Director of Quality Control

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