

New England Biolabs Product Specification

Product Name: Monarch[®] Buffer WX
Catalog #: T2042L
Shelf Life: 36 months
Storage Temp: 25°C
Composition: Proprietary
Specification Version: PS-T2042L v3.0
Effective Date: 26 Mar 2024

Assay Name/Specification (minimum release criteria)

Endonuclease Activity (Nicking) - A 50 µl reaction in rCutSmart[™] Buffer containing 1 µg of supercoiled PhiX174 DNA and a minimum of 10 µl of Monarch[®] Buffer WX 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) - A 50 µl reaction in rCutSmart[™] Buffer containing 1 µg of PhiX174-HaeIII DNA and a minimum of 10 µl of Monarch[®] Buffer WX 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 (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 Monarch[®] Buffer WX 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.

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Date 26 Mar 2024

Lauren Brown
Quality Approver

