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New England Biolabs Product Specification

Product Name: FseI

Catalog #: R0588S/L/V
Concentration: 2,000 units/ml

Unit Definition: One unit is defined as the amount of enzyme required to digest 1 µg of pBC4 DNA in 1 hour at 37°C in a total reaction

volume of 50 μ l.

Shelf Life: 12 months
Storage Temp: -80°C

Storage Conditions: 10 mM Tris-HCl, 100 mM KCl, 1 mM DTT, 0.1 mM EDTA, 0.5 % Tween® 20, 0.5 % IGEPAL® CA-630, 50

% Glycerol, (pH 7.4 @ 25°C)

Specification Version: PS-R0588S/L v3.0
Effective Date: 12 Dec 2016

Assay Name/Specification (minimum release criteria)

Endonuclease Activity (Nicking) - A 50 μ l reaction in CutSmartTM Buffer containing 1 μ g of supercoiled PhiX174 DNA and a minimum of 10 Units of FseI incubated for 4 hours at 37°C results in <10% conversion to the nicked form as determined by agarose gel electrophoresis.

Exonuclease Activity (Radioactivity Release) - A 50 μl reaction in CutSmartTM Buffer containing 1 μg of a mixture of single and double-stranded [³H] *E. coli* DNA and a minimum of 10 units of FseI incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.

Ligation and Recutting (Terminal Integrity) - After a 10-fold over-digestion of pBC4 DNA with FseI, >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 FseI.

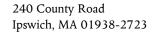
Non-Specific DNase Activity (16 Hour) - A 50 μl reaction in CutSmartTM Buffer containing 1 μg of pBC4 DNA and a minimum of 10 units of FseI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

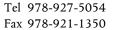
Protein Purity Assay (SDS-PAGE) - FseI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.











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Date 12 Dec 2016

Derek Robinson Quality Approver





