### Endonuclease Activity (Nicking)
- A 50 µl reaction in CutSmart™ Buffer containing 1 µg 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.

**Pass**

### Exonuclease Activity (Radioactivity Release)
- A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded \[^{3}H\] 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.

**Pass**

### Ligation and Recutting (Terminal Integrity)
- After a 10-fold over-digestion of Adenovirus-2 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.

**Pass**

### Non-Specific DNase Activity (16 Hour)
- A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Adenovirus-2 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.

**Pass**

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

**Pass**

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*The BSA in this product has been granted an EDQM "Certificate of Suitability" from the European Directorate for the Quality of Medicines (# R1-CEP-2003-204-Rev00) and has been granted a USDA Certificate for Export of Bovine Blood Plasma/Serum for Manufacture into Pharmaceutical Products.*