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 30 units of MlyI 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 Lambda DNA with MlyI, ~75% of the DNA fragments can be ligated with T4 DNA ligase in 16 hours at 16°C. Of these ligated fragments, ~75% can be recut with MlyI.

Pass

Non-Specific DNase Activity (16 Hour) - A 50 µl reaction in CutSmart™ Buffer containing 1 µg of Lambda DNA and a minimum of 10 Units of MlyI 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) - MlyI is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.

Pass

* 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.