

New England Biolabs Product Specification

<i>Product Name:</i>	AsiSI
<i>Catalog #:</i>	R0630S/L
<i>Concentration:</i>	10,000 units/ml
<i>Unit Definition:</i>	One unit is defined as the amount of enzyme required to digest 1 µg of XhoI digested pXba in 1 hour at 37°C in a total reaction volume of 50 µl.
<i>Shelf Life:</i>	18 months
<i>Storage Temp:</i>	-20 °C
<i>Storage Conditions:</i>	300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA
<i>Specification Version:</i>	PS-R0630S/L v1.0
<i>Effective Date:</i>	21 Aug 2013

Assay Name/Specification (minimum release criteria)

Exonuclease Activity (Radioactivity Release) - A 50 µl reaction in CutSmart™ Buffer containing 1 µg of a mixture of single and double-stranded [³H] *E. coli* DNA and a minimum of 10 units of AsiSI incubated for 4 hours at 37°C releases <0.2% of the total radioactivity.

Ligation and Recutting (Terminal Integrity) - After a 2-fold over-digestion of pXbaI (Xho digested) DNA with AsiSI, ~75% 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 AsiSI.

Non-Specific DNase Activity (16 hour) - A 50 µl reaction in CutSmart™ Buffer containing 1 µg of pXbaI (Xho digested) DNA and a minimum of 10 Units of AsiSI incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis. NOTE: although no nuclease degradation is detected under these conditions, extended incubations and/or high concentrations of this enzyme may result in star activity. See the product FAQ for recommended reaction conditions for this enzyme.

* 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.



Date 21 Aug 2013

Derek Robinson
Director of Quality Control

