

## New England Biolabs Certificate of Analysis

**Product Name:** *Msp*II  
**Catalog #:** R0661S/L  
**Concentration:** 5,000 units/ml  
**Unit Definition:** One unit is defined as the amount of enzyme required to digest 1 µg of pBR322 (dcm+) DNA in 1 hour at 37°C in a total reaction volume of 50 µl.  
**Lot #:** 0021310  
**Assay Date:** 10/2013  
**Expiration Date:** 10/2015  
**Storage Temp:** -20 °C  
**Storage Conditions:** 300 mM NaCl, 10 mM Tris-HCl (pH 7.4), 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 500 µg/ml BSA  
**Specification Version:** PS-R0661S/L v1.0  
**Effective Date:** 19 Aug 2013

Assay Name/Specification (minimum release criteria)	Lot #0021310
<b>Exonuclease Activity (Radioactivity Release)</b> - A 50 µl reaction in NEBuffer 4 containing 1 µg of a mixture of single and double-stranded [ <sup>3</sup> H] <i>E. coli</i> DNA and a minimum of 15 units of <i>Msp</i> II incubated for 4 hours at 37°C releases <0.1% of the total radioactivity.	<b>Pass</b>
<b>Non-Specific DNase Activity (16 hour)</b> - A 50 µl reaction in NEBuffer 4 containing 1 µg of pBR322 DNA and a minimum of 5 units of <i>Msp</i> II 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.	<b>Pass</b>
<b>Protein Purity Assay (SDS-PAGE)</b> - <i>Msp</i> II is >95% pure as determined by SDS PAGE analysis using Coomassie Blue detection.	<b>Pass</b>

\* 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.



Authorized by  
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19 Aug 2013



Inspected by  
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19 Dec 2013

