NEW ENGLAND BioLabs® Inc.

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New England Biolabs
Certificate of Analysis

Product Name:	*pBR322 Vector*
Catalog #:	*N3033S/L*
Concentration:	*1,000 µg/ml*
Unit Definition:	*N/A*
Lot #:	*0931802*
Assay Date:	*02/2018*
Expiration Date:	*02/2020*
Storage Temp:	*-20°C*
Storage Conditions:	*10 mM Tris-HCl (pH 8.0), 1 mM EDTA*
Specification Version:	*PS-N3033S/L v1.0*
Effective Date:	*08 Jul 2014*

Assay Name/Specification (minimum release criteria)	**Lot #0931802**
A260/A280 Assay - The ratio of UV absorption of pBR322 Vector at 260 and 280 nm is between 1.8 and 2.0.	**Pass**
DNA Concentration (A260) - The concentration of pBR322 Vector is between 1000 and 1050 µg/ml as determined by UV absorption at 260 nm.	**Pass**
Electrophoretic Pattern (Plasmid) - The banding pattern of pBR322 Vector on a 1.2% agarose gel is evaluated against a control lot for sharpness and relative intensity as determined by gel electrophoresis using Ethidium Bromide.	**Pass**
Non-Specific DNase Activity (DNA, 16 hour) - A 50 µl reaction in 1X NEBuffer 2 containing 5 µg of pBR322 Vector incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.	**Pass**
Restriction Digest (Linearization) - A 50 µl reaction in NEBuffer 2.1 containing 5 µg of pBR322 Vector DNA and 20 units of HindIII incubated for 1 hour at 37°C produces > 95% linearization resulting in a single band of approximately 4361 bp as determined by agarose gel electrophoresis.	**Pass**

Authorized by
Derek Robinson
08 Jul 2014

Inspected by
Vanessa Mathieu-Sheltry
07 Feb 2018

ISO 9001 Registered Quality Management
ISO 14001 Registered Environmental Management
ISO 13485 Registered Medical Devices