NEBuffer 3.1

1-800-632-7799
info@neb.com
www.neb.com

B7203S 0311601190 11

B7203S

5.0 ml **Lot: 0311601**

Store at –20°C **Exp: 1/19**

Description: New England Biolabs provides a color-coded 10X NEBuffer with each restriction endonuclease to ensure optimal (100%) activity. Most of our enzymes are supplied with one of four standard NEBuffers. Occasionally, an enzyme has specific buffer requirements not met by one of the four standard NEBuffers, in which case the enzyme is supplied with its own unique NEBuffer.

1X NEBuffer 3.1:
100 mM NaCl
50 mM Tris-HCl
10 mM $MgCl_2$
100 µg/ml BSA
pH 7.9 @ 25°C
Supplied as a 10X concentrated stock

Quality Control

pH range: The pH of 10X NEBuffer 3.1 is between pH 7.8 and 8.0.

16-hour Non-specific Nuclease Activity Assay: A 50 µl reaction in 1X NEBuffer 3.1 containing 1 µg of ϕX HaeIII digested DNA incubated for 16 hours at 37°C results in a DNA pattern free of detectable nuclease degradation as determined by agarose gel electrophoresis.

Endonuclease (nicking) Activity Assay: A 50 µl reaction in 1X NEBuffer 3.1 containing 1 µg of supercoiled ϕX174 DNA incubated for 4 hours at 37°C results in < 10% conversion to the nicked form as determined by agarose gel electrophoresis.

Buffer Functional Assay: A 50 µl reaction in 1X NEBuffer 3.1 containing 1 µg of pBC4 DNA and 1 unit of NotI, or 1 µg of λ DNA and 1 unit of AseI, incubated for 1 hour at 37°C results in complete digestion of the substrate DNA as determined by agarose gel electrophoresis.

RNase Activity (Extended Digestion): A 10 µl reaction in 1X NEBuffer 3.1 with 40 ng RNA transcript is incubated for 16 hours at 37°C. After incubation for 16 hours, no detectable degradation of the RNA is observed as determined by gel electrophoresis using fluorescent detection.

CERTIFICATE OF ANALYSIS

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

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CERTIFICATE OF ANALYSIS