

New England Biolabs Certificate of Analysis

Product Name: Fpg
Catalog Number: M0240L
Concentration: 8,000 U/ml
Unit Definition: One unit is defined as the amount of enzyme required to cleave 10 pmol of a 34-mer oligonucleotide duplex containing a single 8-oxoguanine base paired with a cytosine in a total reaction volume of 10 µl in 1 hour at 37°C.
Packaging Lot Number: 10164297
Expiration Date: 07/2024
Storage Temperature: -20°C
Storage Conditions: 50 mM NaCl, 20 mM Tris-HCl, 0.5 mM EDTA, 50 % Glycerol, 200 µg/ml BSA, (pH 8.0 @ 25°C)
Specification Version: PS-M0240S/L v1.0


| Fpg Component List | | | |
|--------------------|-----------------------|------------|----------------------|
| NEB Part Number | Component Description | Lot Number | Individual QC Result |
| M0240LVIAL | Fpg | 10156574 | Pass |
| B9001SVIAL | Purified BSA | 10153875 | Pass |
| B7001SVIAL | NEBuffer™ 1 | 10150375 | Pass |

| Assay Name/Specification | Lot # 10164297 |
|---|----------------|
| Exonuclease Activity (Radioactivity Release) A 50 µl reaction in NEBuffer 1 containing 1 µg of a mixture of single and double-stranded [³ H] E. coli DNA and a minimum of 24 units of Fpg incubated for 4 hours at 37°C releases <1.0% of the total radioactivity. | Pass |
| Non-Specific DNase Activity (16 Hour) A 50 µl reaction in NEBuffer 1 containing 1 µg of Lambda-HindIII DNA and a minimum of 40 units of Fpg 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) Fpg is ≥ 95% pure as determined by SDS-PAGE analysis using Coomassie Blue detection. | Pass |
| Protein Concentration (A280) The concentration of Fpg is 0.39 mg/ml +/- 10% as determined by UV absorption at 280 nm. Protein concentration is determined by the Pace method using the extinction | Pass |

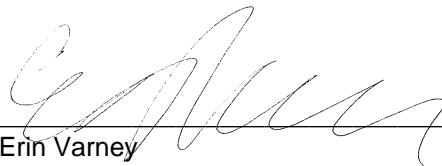
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|--|---|
| <p>coefficient of 39,795 and molecular weight of 30,290 daltons for Fpg (Pace, C.N. et al. (1995) Protein Sci., 4, 2411-2423).</p> <p>qPCR DNA Contamination (E. coli Genomic) A minimum of 8 units of Fpg is screened for the presence of E. coli genomic DNA using SYBR® Green qPCR with primers specific for the E. coli 16S rRNA locus. Results are quantified using a standard curve generated from purified E. coli genomic DNA. The measured level of E. coli genomic DNA contamination is ≤ 1 E. coli genome.</p> <p>RNase Activity (Extended Digestion) A 10 μl reaction in NEBuffer 4 containing 40 ng of a 300 base single-stranded RNA and a minimum of 8 units of Fpg is incubated at 37°C. After incubation for 16 hours, >90% of the substrate RNA remains intact as determined by gel electrophoresis using fluorescent detection.</p> | <p style="text-align: center;">Pass</p> <p style="text-align: center;">Pass</p> |

This product has been tested and shown to be in compliance with all specifications.

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09 Sep 2022



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