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ProductInformation

pUC18 DNA *Hae* III Digest

Catalog Number **D6293**
Storage Temperature –20 °C

Product Description

pUC 18 phage DNA is completely digested with the restriction endonuclease *Hae* III to prepare this marker. The resulting mixture of fragments is suitable for use as a molecular weight marker for agarose or acrylamide gel electrophoresis.

The digest contains 11 fragments with the following sizes (base pairs):

587
458
434
298
267
257
174
102
80
18
11

The pUC18 DNA *Hae* III Digest is supplied as a solution in 10 mM Tris-HCl, pH 8.0, with 1 mM EDTA.

The pUC18 DNA *Hae* III Digest is suitable for size determination of double-stranded DNA using DNA electrophoresis.

The recommended agarose gel concentration is 2.5% for this marker. A sample of the marker should be diluted with gel loading buffer to an appropriate loading concentration. Typically 500 ng per well (50 ng/µl, 10 µl load) is sufficient to be seen using ethidium bromide staining.

The suitability of the digest for size determination was determined with an acrylamide gel. The pUC18 DNA *Hae* III Digest was prepared for acrylamide gel electrophoresis as follows:

0.15–0.3 µg of pUC18 DNA *Hae* III Digest
2 µl of gel loading solution (Catalog Number G2526, (0.05% w/v bromophenol blue, 40% w/v sucrose, 0.10 M EDTA, pH 8.0)

Bring the total volume to 7 µl with sterile water.

0.2–0.3 µg were loaded on a 10–20% acrylamide gradient gel. Gel electrophoresis was performed in 1× TBE (0.089 M Tris-borate, pH 8.3, 0.002 M EDTA). The gel was run with appropriate DNA fragment size standards at 70 volts until the tracking dye was at the bottom of the gel. After staining 15–20 minutes in 1 µg/ml ethidium bromide, 8 bands (80–587 bp) were clearly resolved and the pattern was consistent with the expected fragment sizes.
Note: Ethidium bromide background can be reduced by destaining 30–45 minutes in 1× electrophoresis buffer.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at –20 °C is recommended.

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