

DNA Methylation Standard Set

[Catalog No. P-1025-1]

Description

The DNA Methylation/Hydroxymethylation Standard Set is designed to be used as positive controls in DNA methylation experiments and various applications including MS/hMS-PCR and quantification of cytosine modifications. It can also be used as substrates for studies involving 5-methylcytosine and 5-hydroxymethylcytosine interacting proteins.

Includes three DNA standards: unmodified DNA containing only cytosines, methylated DNA containing only 5-methylcytosines, and hydroxymethylated DNA containing only 5-hydroxymethylcytosines.

Each standard is a 200 base pair fragment that was generated by PCR using the Methylamp™ MS-qPCR Fast Kit (Cat. #P-1028) and contains 57 cytosine residues on the forward strand, of which 19 are at CpG sites.

Each DNA standard is confirmed by electrophoresis on an agarose gel.

The included PCR primers contain both forward and reverse strand primers to amplify a 127 base pair PCR product of the DNA standard. These PCR primers can be used for either endpoint or real time PCR with 10-15 pg of each DNA standard as template.

Size

3 x 2 µg/standard

Content

Unmodified DNA	2 µg	50 ng/µl
Methylated DNA	2 µg	50 ng/µl
Hydroxymethylated DNA	2 µg	50 ng/µl

Unmodified control primer (20 µM)

Forward: 10 µl

Reverse: 10 µl

Modified control primer (20 µM)

Forward: 10 µl

Reverse: 10 µl

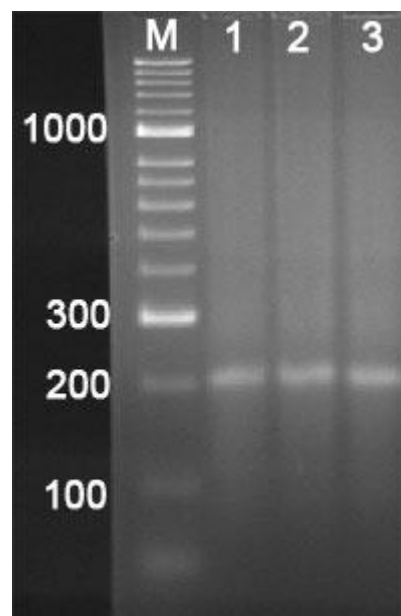
Storage

Aliquot and store at -20°C or lower. Avoid repeated freezing and thawing. Multiple freeze/thaw cycles may result in decreased performance. Non-hazardous. No MSDS necessary.

Handling Recommendations

For maximum recovery of the products, centrifuge the vial prior to opening the cap.

Data



Each DNA standard (500 ng) was run on a 2.5% agarose gel. All three DNA standards are 200 bp and either unmodified (cytosine, Lane 1), methylated (5-mC, Lane 2) or hydroxymethylated (5-hmC, Lane 3).

This product is for research purposes only. Not intended for use in diagnostic procedures.