

Universal Methylated DNA Standards

Determine Bisulfite Conversion Efficiency Using Zymo Research's Methylated DNA & Primer Sets

Compatible with Zymo Research's Full Line of Bisulfite Conversion Products

- EZ DNA Methylation™ Kit
- EZ-96 DNA Methylation™ Kit
- EZ DNA Methylation-Gold™ Kit
- EZ-96 DNA Methylation-Gold™ Kit
- EZ DNA Methylation-Direct™ Kit
- EZ-96 DNA Methylation-Direct™ Kit

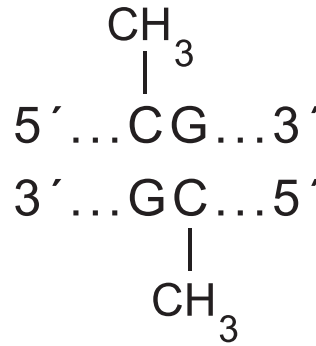
Methylated DNA Standards Available as...

- Linearized Plasmid
- Human Genomic DNA
- Mouse Genomic DNA



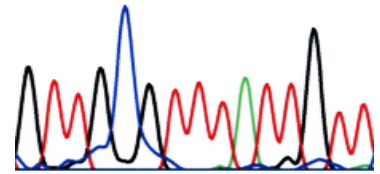
The **Universal Methylated DNA Standard**, **Universal Methylated Human DNA Standard**, and the **Universal Methylated Mouse DNA Standard** include enzymatically methylated DNA together with specially-designed primer sets to be used in conjunction with Zymo Research's **EZ DNA Methylation™**, **EZ DNA Methylation-Gold™**, and **EZ DNA Methylation™ Direct Kits** to assess the efficiency of bisulfite-mediated conversion of DNA.

Central to this is DNA that has been enzymatically modified with Sss I methylase (EC 2.1.1.73) *in vitro*. The DNA is methylated at all cytosine positions comprising CG dinucleotides. Each primer set has been specifically designed to amplify a fragment of the supplied DNA following bisulfite treatment. The methylated cytosines remain unconverted following bisulfite treatment, whereas nonmethylated cytosines are converted into uracil and detected as thymine following PCR (see below).



CpGpCpGpCpG

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Original DNA with methylated C^mpG ▶ G T T G C G C T C A C T G C C
DNA Sequencing after CT conversion ▶ G T T G C G T T T A T T G T T



DNA sequencing results after bisulfite treatment. DNA with methylated C^mpG (at nucleotide position #5) was processed using the **EZ DNA Methylation-Gold™ Kit**. The recovered DNA was amplified by PCR and then sequenced directly. The methylated cytosine at position #5 remained intact while the unmethylated cytosines (i.e., positions #7, 9, 11, 14 and 15) were completely converted into uracil following bisulfite treatment and detected as thymine following PCR.



ZYMO RESEARCH

The Beauty of Science is to Make Things Simple

Toll-Free 1-888-882-9682
Main 1-714-288-9682
Fax 1-714-288-9643
Email info@zymoresearch.com
Web www.zymoresearch.com

Ordering Information

Methylated DNA Standards	Cat. No.	Kit Size
Universal Methylated DNA Standard	D5010	1 set
Universal Methylated Human DNA Standard	D5011	1 set
Universal Methylated Mouse DNA Standard	D5012	1 set