

# Cynomolgus Monkey High Methylated Genomic DNA Control



**Product Name:** Cynomolgus Monkey High Methylated DNA Control

**Catalog Number:** 80-8067-MFGHM5

**Product Contents:** 1 vial Cynomolgus Monkey High Methylated Genomic DNA (5µg at 100 ng/µL, >85% Methylation)

**Technical Specifications:** 5µg in TE buffer (10mM Tris-HCl, 1mM EDTA, pH 8.0) Store at -20°C, upon arrival, in aliquots, for 2 years. For best results, do not freeze/thaw an individual aliquot more than three times. For longer term storage -70°C is recommended.

**Shipping:** Freeze at -20°C upon arrival.

## Intended Use: FOR RESEARCH USE ONLY

### Product Highlights

- ▶ Cynomolgus Monkey High Methylated Genomic DNA is derived from liver tissue and *in vitro* enzymatically methylated resulting in greater than 85% methylation
- ▶ Ideal for use as control in bisulfite methylation analysis procedures including Pyrosequencing, targeted NGS, and MS-HRM
- ▶ Tested on a global methylation assay for consistent performance
- ▶ Requires bisulfite modification prior to use

### Example Protocol

- ▶ Bisulfite modification of controls and sample(s) of interest.
  - Zymo Research EZ Methylation kit (Cat.#D5002 or D5004) with 200 - 500 ng of input DNA following manufacturers recommended protocol.

- ▶ PCR amplification Protocol:

▶ Component	Per 30µl reaction
10X PCR buffer (Contains 15mM MgCl <sub>2</sub> )	3 µL (1x)

25 mM MgCl <sub>2</sub>	1.8 μL (3.0 mM final conc.)
10 mM dNTPs	0.6 μL (200 μM of each)
10 μM Forward primer	0.6 μL (6 pmol)
10 μM Reverse primer	0.6 μL (6 pmol)
HotStart Taq Polymerase (5 U/μl)	0.15 μL (0.75 U)
DNA	1 μL of bisulfite treated DNA
Water	Adjust to 30 μL

○ HotStar Taq Polymerase Qiagen (Cat. #203205) recommended with the following PCR cycling conditions:

- 95°C 15 min; 45 x (95°C 30 s; Ta°C 30 s; 72°C 30 s); 72°C 5 min; 4°C ∞

○ Additional optimization is needed if different PCR system is used in analysis.

▶ Sequencing Analysis: Pyrosequencing, NGS, or MS-HRM.

### Example Quality Control Results

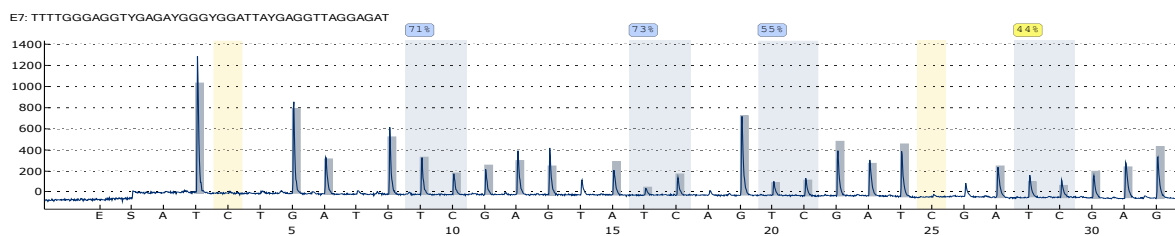


Figure: High Methylated Control DNA Tested on a Monkey Line1 Methylation Assay via Pyrosequencing

\*Pyrogram showing approximately 60% methylation at all CpG sites

\*Due to the nature of the Line1 repetitive assay, approximately 60% methylation is to be expected for high control