Methylamp™ PCR Enhancer

Base Catalog # R-1002

PLEASE READ THIS ENTIRE USER GUIDE BEFORE USE

The *Methylamp*™ PCR Enhancer is suitable for conventional PCR, real time PCR, and MS-PCR.

If you use the *Methylamp*™ PCR Enhancer for MS-PCR with tiny amounts of starting DNA, the numbers of PCR cycles should be greater than 45

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SIZE

4 ml (2 x 2ml for 400 standard PCR reactions)

SHIPPING & STORAGE

Store at 4°C. Stable for 1 year from date of shipment.

GENERAL PRODUCT INFORMATION

Usage Limitation: The *Methylamp*™ PCR Enhancer is for research use only and is not intended for diagnostic or therapeutic application.

Intellectual Property: *Methylamp*™ is a trademark of EpigenTek, Inc

A BRIEF OVERVIEW

In some cases, particularly when complex genomic DNA or chemical modified DNA is used as a PCR template, specific amplification cannot be generated although all experimental parameters are likely to be optimized. A template with GC-rich content or repeat codons is also difficult to amplify. *Methylamp*™ PCR Enhancer is specifically designed to enhance specificity and yield of PCR amplification including methylation specific PCR amplification. The benefit in using *Methylamp*™ PCR Enhancer is that it may enable an amplification that had previously failed. *Methylamp*™ PCR Enhancer is also able to reduce problematic PCR artifacts by decreasing formation of secondary structures in the GC region.

PROTOCOL

For Conventional PCR:

1. Prepare amplification reaction mixture as follows:

10X PCR Buffer	5 µl
dNTP Mix (100 mM)	1 µl
Taq DNA Polymerase (2 U/ul)	1 µl
Primer A (20 uM)	1 µl
Primer B (20 uM)	1 µl
Methylamp™ PCR Enhancer	10 µl
Template DNA	*variable* (<100 ng)
H_2O	*variable*
Total volume:	50 µl

2. Mix reaction mixture gently and transfer to thermal cycler.

3. Program the thermal cycler and start the PCR reaction according to the manufacturer's instruction or your own method. A typical PCR cycling program is as follows:

Step 1(1 X):	95°C for 5 min
Step 2 (30-50 X):	94°C for 0.5 – 1 min
	50-65°C for 0.5 – 1 min
	72°C for 0.5 – 1 min

For Real Time PCR:

1. Prepare amplification reaction mixture as follows:

2X Master Mix	25 µl
Taq DNA Polymerase (2 U/µl)	1 µl
Primer A (20 µM)	1 µl
Primer B (20 µM)	1 µl
Probe (10 µM)	1 µl
Methylamp™ PCR Enhancer	10 µl
Template DNA	*variable* (<100 ng)
H_2O	*variable*
Total volume:	50 µl

2. Mix reaction mixture gently and transfer to thermal cycler.

3. Program the thermal cycler and start the PCR reaction according to manufacturer's instruction or your own method. A typical PCR cycling program is as follows:

Step 1(1 X):	95°C for 4 – 15 min
Step 2 (30-50 X):	94°C for 0.5 min
	50-65°C for 0.5 min
	72°C for 0.5 min

RELATED PRODUCTS

P-1001	Methylamp™ DNA Modification Kit
P-1002	Methylamp™ Coupled DNA Isolation and Modification Kit
P-1008	Methylamp™ 96 DNA Modification Kit
P-1010	Methylamp™ One-Step DNA Modification Kit
P-1011	Methylamp™ Universal Methylatated DNA Kit
P-1014	Methylamp™ Global DNA Methylation Quantification Kit