

EzWay™ DNA Methylation Detection Kit

The detection of methylation in CpG island of genomic DNA is one of the most important fields in epigenetic studies. Koma introduces the EzWay™ DNA methylation detection kit that converts unmethylated cytosine into uracil and leaves methylated cytosine as it is by Na-bisulfite. The EzWay™ DNA methylation detection kit is ready to use kit including DNA extraction kit, DNA binding and elution buffer, Na-bisulfite. The advantages of this kit lie in very high recovery rate that comes from the proprietary binding and elution buffer for Na-bisulfite treated DNA.

Advanced EzWay™ DNA Methylation Detection Express Kit allows quick C/U conversion, so all the key procedures from conversion to DNA purification are done just within 3-4 hours.



■ Features

- Bisulfite modification & spin column method
- Complete conversion of unmethylated cytosine into uracil
- High recovery rate of modified DNA sample
- More simple DNA purification & elution procedure
- Sufficient volume of DNA Binding Buffer is supplied
- DNA Purification Kit is included
- A control primer is supplied for confirmation of DNA modification
- The Express Kit allows quick procedures using heat denaturation (just 3-4 hours for the whole procedures)

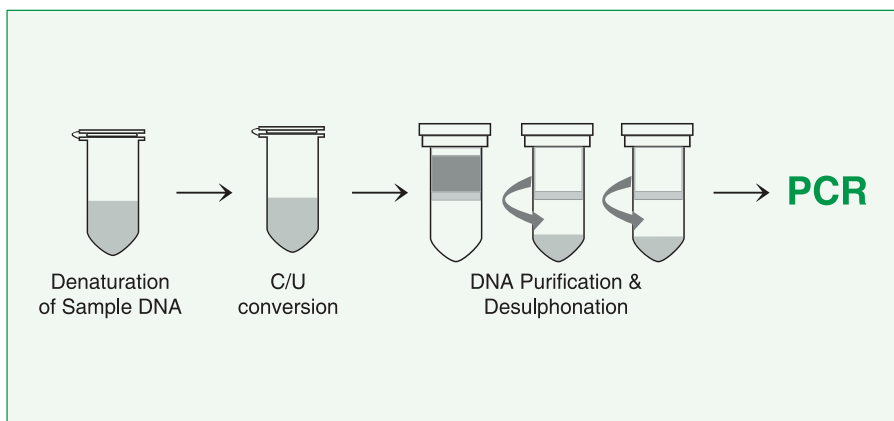
■ Applications

- MSP (Methylation specific PCR)
- Methylation detection using DNA chip
- COBRA (combined bisulfite restriction assay)
- Methylate and Bisulfite sequencing etc.

■ Kit Components

- C/U Conversion Reagent I
- C/U Conversion Reagent II
- D Reagent
- DNA Binding Buffer
- DNA Desalting Buffer
- Neutralization Buffer
- Elution Buffer
- DNA Prep Columns
- Collection Tubes
- Control Primer

■ Protocol





■ Principle

Sample genomic DNA : 5'-CATGCGGTCGACGT-3'

STEP 1. Sodium Bisulfite Treatment Modification

After Bisulfite treatment, all unmethylated Cytosine (C) is changed to Uracil (U).

- Unmethylated sample : 5'-UATGUGGTUGAUGT-3'

- Methylated sample : 5'-UATGCGGTCGACGT-3'

The conversion process of a DNA sample is performed in the bisulfite reaction. All unmethylated Cytosines are converted into Uracil, while methylated Cytosines remain unaltered. DNA purification step is followed.

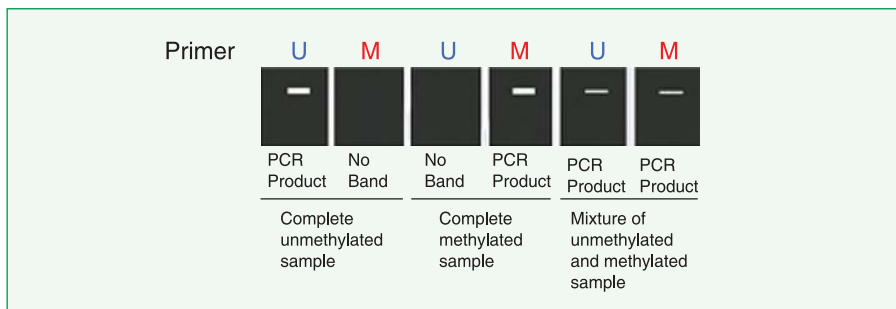
STEP 2. MSP with Unmethyl (U) & Methyl (M) primer

U Primer : 3'-ATACACCAACTACA-5'

M Primer : 3'-ATACGCCAGCTGCA-5'

The PCR primer sets (Unmethylated & Methylated) are designed to distinguish methylated from unmethylated DNA for MSP(Methylation-specific PCR).

STEP 3. Gel electrophoresis and Analysis



After PCR amplification, you can discriminate between methylated and unmethylated DNA sequences of interest by gel electrophoresis.

■ Ordering Information

Cat.No.	Description	Size
K03710	EzWay™ DNA Methylation Detection Kit	20 Tests
K03720	EzWay™ DNA Methylation Detection Kit	50 Tests
K03750	EzWay™ DNA Methylation Detection Express Kit	20 Tests
K03760	EzWay™ DNA Methylation Detection Express Kit	50 Tests