# Express DNA methylation kit (shallow well)

# Fastest method for complete, highthroughput (96-well) bisulfite conversion of

(96-well) bisulfite treatment and conversion of DNA for methylation analysis. No preparation is necessary when using the Express Conversion Reagent. Simply add this reagent to a DNA sample and let the reaction proceed to completion. DNA denaturation and bisulfite conversion processes are combined with added heat to facilitate rapid denaturation. Desulphonation and clean-up of the converted DNA is performed using a unique 96-well spin-plate. High yield, converted DNA is ideal for PCR, array, bisulfite and next generation sequencing.

Cytosine methylation is a naturally occurring base modification, in both prokaryotic and eukaryotic organisms. It involves the addition of a methyl group to the fifth carbon position of the cytosine pyrimidine ring via a methyltransferase enzyme. It has been demonstrated that aberrant DNA methylation is a widespread phenomenon in cancer and may be among the earliest changes to occur during oncogenesis. DNA methylation has also been shown to play a central role in gene imprinting, embryonic development, X-chromosome gene silencing, and cell cycle regulation.

## **Ordering Information**

Order Online »

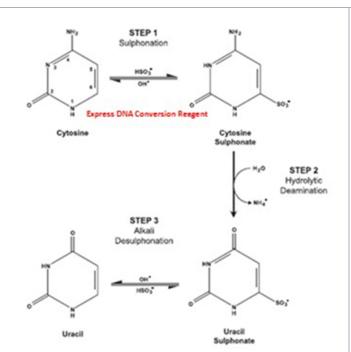
ENZ-45003-0002

2x96 wells

Manuals, SDS & CofA

View Online »

- Ready-to-use conversion reagent is added directly to DNA
- · Easy to follow instructions
- High-yield
- DNA is ideal for PCR, MSP, array, bisulfite and Next-Gen sequencing



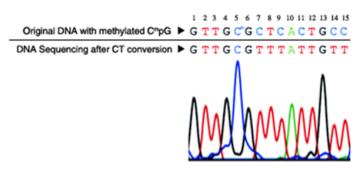


Figure: Overview of the bisulfite conversion process. Steps 1 and 2 (bisulfite conversion) occur in just one step when using the Express methylation kit. Step 3 occurs when the DNA is bound to the column matrix. DNA needs to be denatured for the reaction to be completely processed.

Figure: Overview of the bisulfite conversion principle. DNA template following bisulfite treatment is sequenced. Results show that methylated cytosines (position 5) remain intact while unmethylated cytosines (positions 7,11,14,15) are converted to uracil following bisufite treatment.

### **Handling & Storage**

**Use/Stability** With proper storage, good for one year upon receipt.

Handling Avoid exposure to light.

**Long Term Storage Ambient** 

**Shipping Ambient Temperature** 

#### Regulatory Status RUO - Research Use Only

#### **Product Details**

**Contents** Express conversion reagent, Methylation binding buffer, Methylation wash buffer

concentrate, L-Desulphonation reagent, Methylation elution buffer, Express binding

plate (shallow), Express conversion plates, Collection plates, Elution plates