

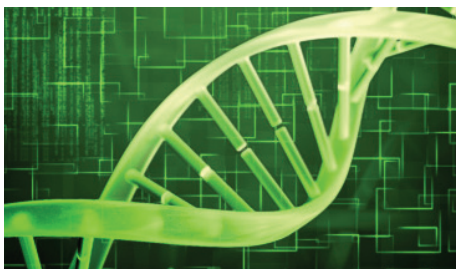
# Complete Solutions for DNA Methylation

## Global DNA Methylation Studies

We offer the most comprehensive selection of DNA methylation research products to cover every step of your experiment workflow, from upstream to downstream. **Learn more at: [www.epigentek.com/DNA-Methylation](http://www.epigentek.com/DNA-Methylation)**

### DNA Isolation

### Methylated DNA Quantification



#### DNA Isolation

Efficient, precise, and high quality isolation of DNA is a critical precursor to having a successful DNA-based experiment. Epigentek's DNA isolation products are developed to provide a complete set of essential components that will allow the experimenter to easily and efficiently isolate DNA.

- FitAmp Plasma/Serum DNA Isolation Kit
- FitAmp General Tissue Section DNA Isolation Kit
- FitAmp Urine DNA Isolation Kit
- FitAmp Blood and Cultured Cell DNA Extraction Kit



#### Methylated DNA Quantification

DNA methylation plays an important role in normal organismal development and in cellular differentiation in higher organisms. Gene expression, as well as the development of nearly all types of cancer, are also tied to DNA methylation. Global quantification of DNA methylation, as well as demethylation (e.g., 5-hydroxymethylcytosine and 5-formylcytosine), is crucial for understanding the roles that gene expression and silencing play in the development of cancer and other diseases.

- MethylFlash Methylated DNA Quantification Kit
- MethylFlash Hydroxymethylated DNA Quantification Kit
- MethylFlash Urine 5-Methylcytosine (5-mC) Quantification Kit
- MethylFlash 5-Formylcytosine (5-fC) DNA Quantification Kit

### MethylFlash™ Methylated DNA Quantification Kit



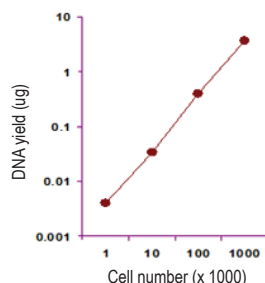
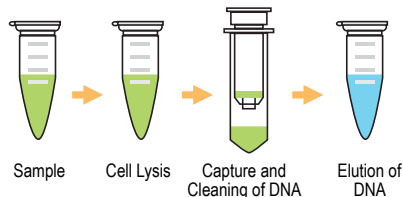
For an easy-to-follow, step-by-step demonstrational video on the MethylFlash Methylated DNA Quantification Kit (Colorimetric), visit us online at **[epigentek.com](http://epigentek.com)** and search our product number P-1034. Or, visit us on YouTube:

[youtube.com/epigentek](http://youtube.com/epigentek)

For ordering information or questions regarding our products, call us at 1-877-374-4368 or email us at [info@epigentek.com](mailto:info@epigentek.com)

# EXAMPLE WORKFLOW

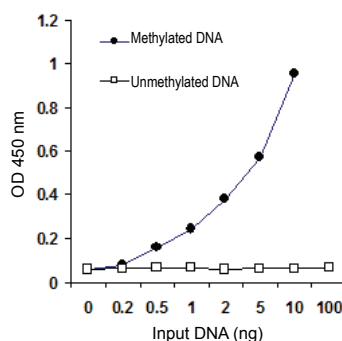
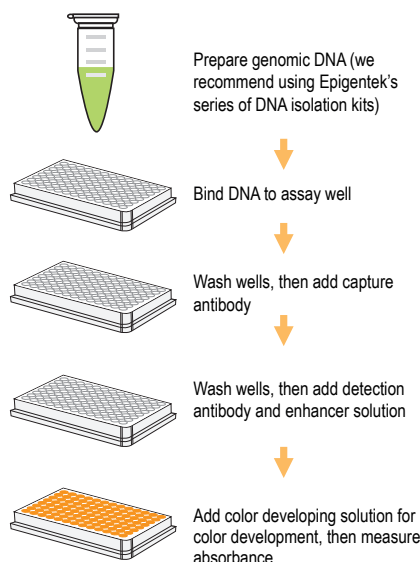
## FitAmp Blood and Cultured Cell DNA Extraction Kit



↑ Genomic DNA was isolated from MCF-7 cell line using the FitAmp Blood and Cultured Cell DNA Extraction Kit. The isolated DNA yield was quantified by real time PCR.

The **MethylFlash Methylated DNA Quantification Kit** is also specifically optimized for paired use with the MethylFlash Hydroxymethylated DNA Quantification Kit (Colorimetric) for simultaneously quantifying both methylated DNA and hydroxymethylated DNA.

## MethylFlash Methylated DNA Quantification Kit (Colorimetric)



The **MethylFlash Methylated DNA Quantification Kit (Colorimetric)** contains all reagents necessary for the quantification of global DNA methylation. In this assay, DNA is bound to strip wells that are specifically treated to have a high DNA affinity. The methylated fraction of DNA is detected using capture and detection antibodies and then quantified through an ELISA-like reaction by reading the absorbance in a microplate spectrophotometer at 450 nm. The amount of methylated DNA is proportional to the OD intensity measured, which can be calculated with the kit's included formulas for relative methylation status of two different DNA samples or absolute quantification of 5-methylcytosine (5-mC) using a standard curve.

← Demonstration of high sensitivity and specificity of methylated DNA detection achieved by the MethylFlash kit. Synthetic unmethylated DNA (contains 50% cytosine) and methylated DNA (contains 50% 5-methylcytosine) were added into the assay wells at different concentrations and then measured with the MethylFlash Methylated DNA Quantification Kit (Colorimetric).

### DNA Isolation

P-1004	<b>FitAmp Plasma/Serum DNA Isolation Kit</b> <i>Isolate DNA from plasma or serum samples</i>
P-1003	<b>FitAmp General Tissue Section DNA Isolation Kit</b> <i>Isolate DNA in any targeted microscope tissue area on a slide</i>
P-1017	<b>FitAmp Urine DNA Isolation Kit</b> <i>Isolate DNA from urine</i>
P-1018	<b>FitAmp Blood and Cultured Cell DNA Extraction Kit</b> <i>Isolate DNA from blood leukocytes and cultured mammalian cells</i>

### Methylated DNA Quantification

P-1034	<b>MethylFlash Methylated DNA Quantification Kit (Colorimetric)</b> <i>Colorimetrically quantify global DNA methylation levels</i>	P-1039	<b>MethylFlash Urine 5-Methylcytosine (5-mC) Quantification Kit (Colorimetric)</b> <i>Colorimetrically quantify 5-mC in urine samples using an inhibitory competitive immunoassay method</i>
P-1035	<b>MethylFlash Methylated DNA Quantification Kit (Fluorometric)</b> <i>Fluorometrically quantify global DNA methylation levels</i>	P-1040	<b>MethylFlash Urine 5-Methylcytosine (5-mC) Quantification Kit (Fluorometric)</b> <i>Fluorometrically quantify 5-mC in urine samples using an inhibitory competitive immunoassay method</i>
P-1036	<b>MethylFlash Hydroxymethylated DNA Quantification Kit (Colorimetric)</b> <i>Colorimetrically quantify global DNA hydroxymethylation levels</i>	P-1041	<b>MethylFlash 5-Formylcytosine (5-fC) DNA Quantification Kit (Colorimetric)</b> <i>Colorimetrically quantify 5-mC with DNA isolated from any species</i>
P-1037	<b>MethylFlash Hydroxymethylated DNA Quantification Kit (Fluorometric)</b> <i>Fluorometrically quantify global DNA hydroxymethylation levels</i>		