abcam

Product datasheet

Hydroxymethylated DNA Quantification Kit (Colorimetric) ab117130

5 References 画像数 4

製品の概要

製品名 Hydroxymethylated DNA Quantification Kit (Colorimetric)

検出方法 Colorimetric

サンプルの種類 Saliva, Urine, Serum, Plasma, Tissue, Adherent cells, Suspension cells

アッセイタイプQuantitative検出感度>= 40 pg/well

全工程の試験時間 3h 45m

製品の概要 DNA methylation is a covalent modification of the cytosine ring at the 5' position, resulting in 5-

methylcytosine (5-mC). In somatic cells, 5-mC is found almost exclusively in the context of paired symmetrical methylation of the dinucleotide CpG. The biological important of 5-mC as a major epigenetic modification in phenotype and gene expression has been recognized widely. Quite recently, a novel modified nucleotide, 5-hydroxymethylcytosine (5-hmC), has been detected to be abundant in mouse brain and embryonic stem cells. It is a hydroxylated and methylated form of cytosine. Although it is still uncertain its specific role in epigenetics, it is believed it plays a role in

DNA demethylation, chromatin remodeling and gene expression regulation.

Abcam's Hydroxymethylated DNA Quantification Kit (Colorimetric) (ab117130) is a complete set of optimized buffers and reagents to quantify global DNA hydroxymethylation by specifically measuring levels of 5-hydroxymethylcytosine (5-hmC) without cross-reactivity to methylcytosine

and unmethylated cytosine.

It can be paired to use with <u>Methylated DNA Quantification Kit (Colorimetric) (ab117128)</u>, which specifically quantifies 5-mC, for simultaneously quantification of both methylated and

hydroxymethylated DNA.

試験プラットフォーム Microplate reader

製品の特性

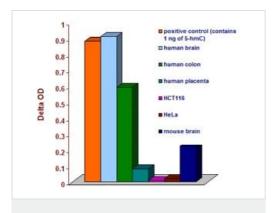
保存方法 Please refer to protocols.

| 内容 | 48 tests | 96 tests |
|-----------------|----------|----------|
| 10X Wash Buffer | 1 x 14ml | 1 x 28ml |

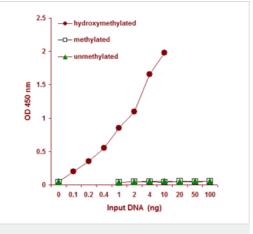
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| 内容 | 48 tests | 96 tests |
|----------------------------------|----------|----------|
| 8-Well Assay Strips (with Frame) | 6 units | 12 units |
| Binding Solution | 1 x 5ml | 1 x 10ml |
| Capture Antibody, 1000 μg/mL | 1 x 4µl | 1 x 8µl |
| Detection Antibody, 400 μg/mL | 1 x 8µl | 1 x 16µl |
| Developer Solution | 1 x 5ml | 1 x 10ml |
| Enhancer Solution | 1 x 8µl | 1 x 16µl |
| Negative Control I, 20 μg/mL | 1 x 10µl | 1 x 20µl |
| Negative Control II, 20 μg/mL | 1 x 10µl | 1 x 20µl |
| Positive Control, 20 μg/mL | 1 x 10µl | 1 x 20µl |
| Stop Solution | 1 x 5ml | 1 x 10ml |

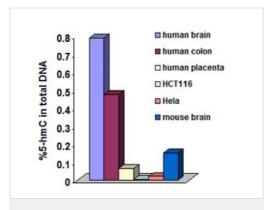
画像



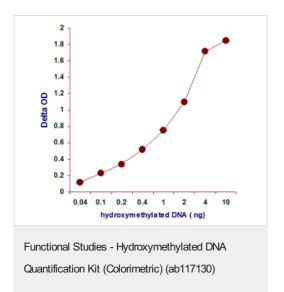
Functional Studies - Hydroxymethylated DNA Quantification Kit (Colorimetric) (ab117130) Demonstration of a high abundance of 5-hydroxymethylcytosine in human brain and colon tissues. 200 ng of DNA isolated from different tissues or cells were added into the assay wells and the hydroxymethylated fraction of DNA was measured using the ab117130. OD intensity measured in variety of DNA samples.



Functional Studies - Hydroxymethylated DNA Quantification Kit (Colorimetric) (ab117130) Demonstration of high specificity of 5-hydroxymethylcytosine detection achieved using ab117130. Synthetic unmethylated DNA (contains only cytosine), methylated DNA (contains only 5-methylcytosine), and hydroxymethylated DNA standard (contains only 5-hydroxymethylcytosine) were added into the assay wells at different concentrations and then measured with ab117130.



Functional Studies - Hydroxymethylated DNA Quantification Kit (Colorimetric) (ab117130) Demonstration of a high abundance of 5-hydroxymethylcytosine in human brain and colon tissues. 200 ng of DNA isolated from different tissues or cells were added into the assay wells and the hydroxymethylated fraction of DNA was measured using ab117130. Percentage of hydroxymethylated DNA in various tissues and cells.



Demonstration of high sensitivity of 5-hydroxymethylcytosine detection achieved using ab117130. Synthetic hydroxymethylated DNA was added into the assay wells at different concentrations and then measured with the ab117130.

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