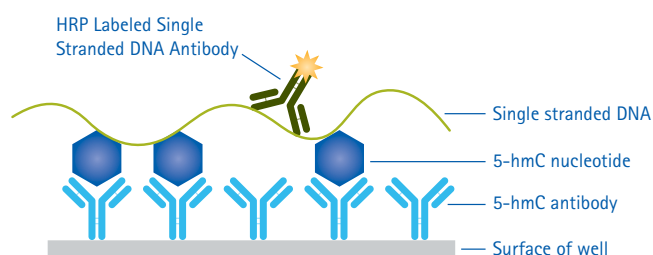


# CpGenome™ 5-hmC Quantitation Kit

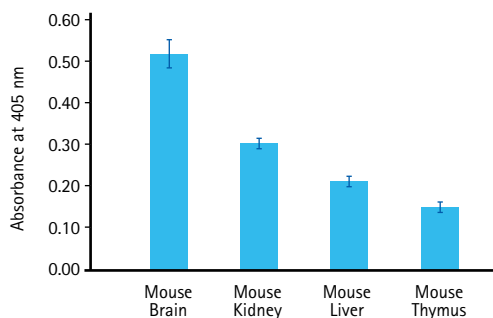
The CpGenome™ 5-hmC Quantitation Kit allows determination of absolute and relative amounts of 5-hydroxymethylcytosine (5-hmC) in genomic DNA samples. This assay utilizes a rapid, streamlined, automation-compatible, ELISA-based protocol for sensitive quantification of 5-hmC DNA obtained from cultured cells or tissues from a wide variety of species.



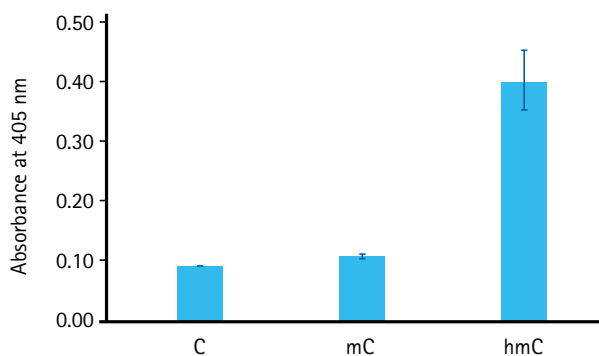
## Benefits

- Highly specific detection of 5-hmC DNA
- Limit of quantitation down to 0.03% of input genomic DNA
- Evaluate 5-hmC levels using 25 ng to 200 ng of input DNA per well
- Streamlined, simple, automation-friendly ELISA-based protocol with colorimetric detection
- Includes set of 5-hmC standards for precise quantitation
- Ideal for global and tissue-specific detection/quantitation, as well as high-throughput screening of 5-hmC activators and inhibitors

**Figure 1.**  
Simple ELISA-based Assay Procedure  
Reliable assay work flow allows for sensitive detection of 5-hmC in genomic DNA samples



**Figure 2.**  
Tissue-Specific Detection of 5-hmC Levels  
100ng of genomic DNA from different tissues (CpGenome™ Mouse 5-mC and 5-hmC DNA Standards, Catalogue No. S8004) was analyzed using the CpGenome 5-hmC Quantitation kit. Data demonstrates reliable detection of differences in 5-hmC levels of input samples consistent with those previously determined by LC/MS analysis (mouse brain 0.55%; mouse kidney 0.23% mouse liver 0.11%; mouse thymus 0.03%)



**Figure 3.**

**Lack of 5-mC Cross Reactivity.**

To analyze specificity of detection, 50 ng of completely unmethylated, methylated or hydroxymethylated DNA Standards (CpGenome™ 5-mC and 5 hmC DNA Standard set; Catalogue No. S8005) were analyzed following protocol outlined in the CpGenome 5-hmC Quantitation kits. Strong detection of 5-hmC was observed with detection of 5-mC near unmethylated background.

## Ordering Information

Description	Catalogue No.
CpGenome 5-hmC Quantitation Kit	17-10091

## Additional Products for 5-hmC and 5-mC Analysis

Description	Catalogue No.
<b>5-hmC and 5-mC DNA Standards</b>	
CpGenome™ Human 5-mC and 5-hmC DNA Standards	S8003
CpGenome™ Mouse 5-mC and 5-hmC DNA Standards	S8004
<b>Antibodies for 5-hmC Analysis</b>	
Anti-5-hydroxymethylcytosine, clone AB3/63.3	MABE176
Anti-5-hydroxymethylcytosine, clone HMC 31	MABE251
Anti-5-Hydroxymethylcytosine, clone HMC-MA01	MABE317

To see the complete offering of kits, assays, and antibodies for epigenetics research visit:

[www.merckmillipore.com/epigenetics](http://www.merckmillipore.com/epigenetics)

## Get Connected!

Join Merck Millipore Bioscience on your favorite social media outlet for the latest updates, news, products, innovations, and contests!

 [facebook.com/MerckMilliporeBioscience](https://www.facebook.com/MerckMilliporeBioscience)

 [twitter.com/Merck4Bio](https://twitter.com/Merck4Bio)



[www.merckmillipore.com/offices](http://www.merckmillipore.com/offices)

## To Place an Order or Receive Technical Assistance

In Europe, please call Customer Service:

France: 0825 045 645

Germany: 01805 045 645

Italy: 848 845 645

Spain: 901 516 645 Option 1

Switzerland: 0848 645 645

United Kingdom: 0870 900 4645

For other countries across Europe, please call: +44 (0) 115 943 0840

Or visit: [www.merckmillipore.com/offices](http://www.merckmillipore.com/offices)

For Technical Service visit:

[www.merckmillipore.com/techservice](http://www.merckmillipore.com/techservice)