

## 5-Methylcytosine / 5-mC antibody [GT4111]

Cat. No. GTX629448

<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	IgG1
<b>Applications</b>	IHC-P, IHC-Fr, IHC-Wm, Dot, EM, MeDIP
<b>Reactivity</b>	Species independent

References ( 11 )

★★★★☆ Review ( 2 )

Package

100 µl, 25 µl

## PRODUCT

## Summary

5-mC antibody detects methylated cytosine, which is a key epigenetic regulatory modification of genomic DNA and is considered a "fifth base". The 5-mC mark is added by DNA methyltransferases (DNMTs) and serves predominately to turn off gene transcription. It is reversible via a DNA demethylation pathway triggered by the Ten-eleven translocation (TET) family of dioxygenases.

## Applications

## Application Note

\*Optimal dilutions/concentrations should be determined by the researcher.

Suggested dilution	Recommended dilution
IHC-P	1:100-1:1000
IHC-Fr	Assay dependent
IHC-Wm	1:50-1:500
Dot	Assay dependent
EM	Assay dependent
MeDIP	Assay dependent

Not tested in other applications.

## Properties

<b>Form</b>	Liquid
<b>Buffer</b>	PBS
<b>Preservative</b>	No preservatives
<b>Storage</b>	Store as concentrated solution. Centrifuge briefly prior to opening vial. For short-term storage (1-2 weeks), store at 4°C. For long-term storage, aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.
<b>Concentration</b>	1.7 mg/ml (Please refer to the vial label for the specific concentration.)
<b>Immunogen</b>	The immunogen used to generate this antibody corresponds to 5-Methylcytosine / 5-mC
<b>Purification</b>	Affinity purified by Protein G.



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**Conjugation**

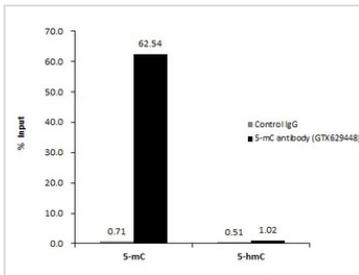
Unconjugated

For laboratory research use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.

**Note**

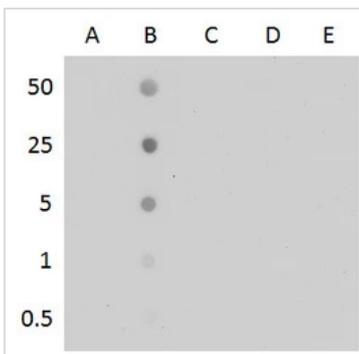
Purchasers shall not, and agree not to enable third parties to, analyze, copy, reverse engineer or otherwise attempt to determine the structure or sequence of the product.

## DATA IMAGES

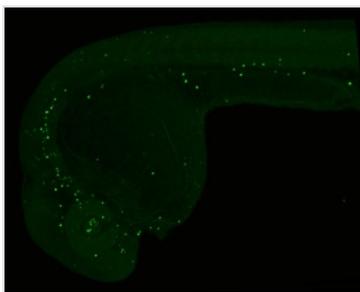
**GTX629448 MeDIP Image**

GTX629448 5-Methylcytosine/ 5-mC antibody [GT4111] in MeDIP experiment.

Human genomic DNA (500 ng) mixed with methylated cytosine standard kit (GTX400004) were subjected to MeDIP with 5-Methylcytosine/ 5-mC antibody [GT4111] (GTX629448) at dilution of 1:500 and analyzed with semi-quantitative PCR. The immunoprecipitated DNA was plotted as % of input DNA.

**GTX629448 Dot Image**

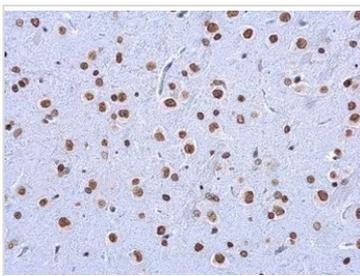
GTX629448 5-methylcytosine antibody [GT4111] Dot blot analysis of anti-5-mC antibody with the synthetic DNA controls (GTX400004). DNA samples (0.5 to 50 ng) were spotted onto positively charged nylon membrane and blotted with 5-mC antibody (GTX629448) at a dilution of 1:500. A: Unmethylated DNA fragment B: DNA fragment containing 5-methylcytosine C: DNA fragment containing 5-hydroxymethylcytosine D: DNA fragment containing 5-formylcytosine E: DNA fragment containing 5-carboxylcytosine

**GTX629448 IHC-Wm Image**

5-Methylcytosine / 5-mC antibody [GT4111] detects 5-Methylcytosine / 5-mC protein on zebrafish by whole mount immunohistochemical analysis.

Sample: 24 hours-post-fertilization zebrafish embryo.

5-Methylcytosine / 5-mC antibody [GT4111] (GTX629448) dilution: 1:50.

**GTX629448 IHC-P Image**

5-Methylcytosine / 5-mC antibody [GT4111] detects 5-Methylcytosine / 5-mC protein at nucleolus in rat brain by immunohistochemical analysis.

Sample: Paraffin-embedded rat brain.

5-Methylcytosine / 5-mC antibody [GT4111] (GTX629448) diluted at 1:200.

Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



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