5-Methylcytosine / 5-mC antibody [GT4111]

Cat. No. GTX629448

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

References (10)

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

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

For full product information, images and publications, please visit our website.

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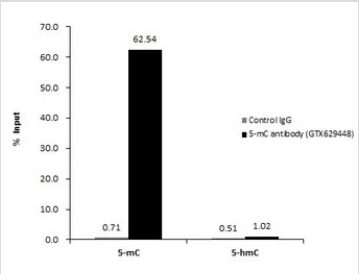
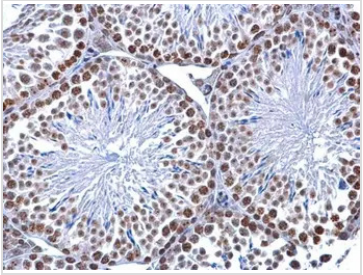
Conjugation	Unconjugated
Note	For laboratory research use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption. Purchasers shall not, and agree not to enable third parties to, analyze, copy, reverse engineer or otherwise attempt to determine the structure or sequence of the product.

DATA IMAGES



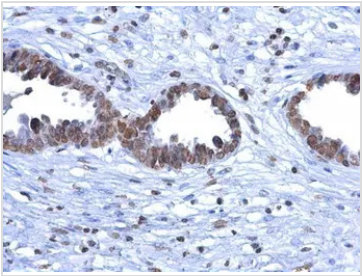
GTX629448 MeDIP Image

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.



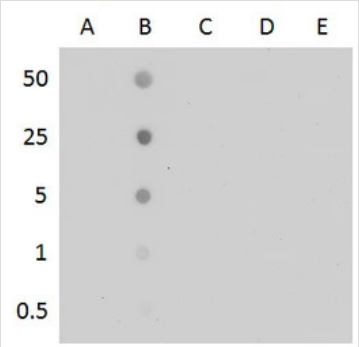
GTX629448 IHC-P Image

5-Methylcytosine / 5-mC antibody [GT4111] detects 5-Methylcytosine / 5-mC protein at nucleus on mouse testis by immunohistochemical analysis.
Sample: Paraffin-embedded mouse testis.
5-Methylcytosine / 5-mC antibody [GT4111] (GTX629448) dilution: 1:200.
Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



GTX629448 IHC-P Image

5-Methylcytosine / 5-mC antibody [GT4111] detects 5-Methylcytosine / 5-mC protein at nucleus on human ovarian carcinoma by immunohistochemical analysis.
Sample: Paraffin-embedded human ovarian carcinoma.
5-Methylcytosine / 5-mC antibody [GT4111] (GTX629448) dilution: 1:200.
Antigen Retrieval: Citrate buffer, pH 6.0, 15 min



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

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