

## MeDIP Validated 5mC Antibody with Positive and Negative Primer Sets



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Chromatrap®'s MeDIP Validated 5mC Antibody with Positive and Negative Primer Set provides a complete set of tools to assist with a successful MeDIP assay. Including: 5mC antibody, control mouse IgG, positive and negative primer sets. The MeDIP validated 5mC Antibody with Positive and Negative Primer Sets is not suitable for use with non-human species.

### Background:

5mC (5-Methylcytosine) is a region of DNA that has been epigenetically modified through the addition of a methyl group at the 5<sup>th</sup> carbon position of cytosine. DNA methylation is a repressive histone modification that is associated with switching off gene expression. This methylation generally occurs at CpG islands and is also associated with genomic imprinting. Aberrant DNA methylation is linked to disease including many cancers.

A mouse IgG is included in this Antibody Primer Set as a negative control for the MeDIP experiment.

The positive primer set included in this Antibody Primer Set recognises an imprinted gene, a source of hypermethylation. It is therefore an appropriate target for the 5mC antibody. The negative gene target included recognises a hypomethylated, protein-coding gene.

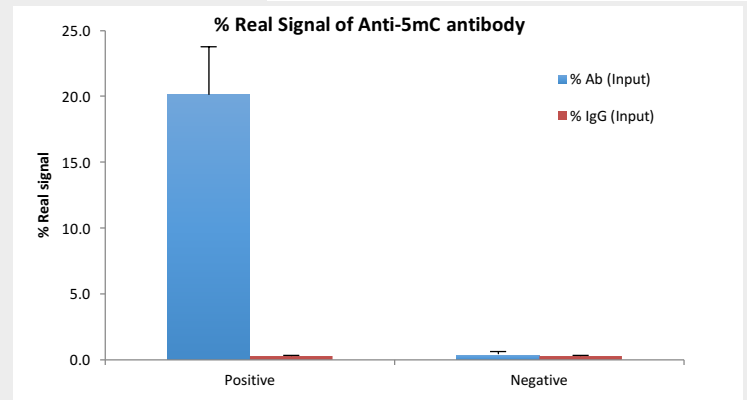
### Suggested Usage:

Component	Suggested Dilution	Figure
5mC	1:4 (gDNA: antibody)	1
Mouse IgG	1:4 (gDNA: antibody)	1
Positive Primer Set	Dilute from 4µM (provided) to 1µM working concentration	
Negative Primer Set	Dilute from 4µM (provided) to 1µM working concentration	

Please note: Optimal dilutions should be determined by the user. These volumes are stated as guidelines only.

### Fig 1. Anti 5mC MeDIP

Methylated DNA Immunoprecipitation (MeDIP) assays were performed with 500ng of genomic DNA from Hec50 cells and 2 $\mu$ g of Anti-5mC antibody. qPCR was used to analyse the enrichment of 5mC onto the positive gene target locus.



**Applications:** MeDIP

**Concentration:** 2mg/ml

**Size:** 50ul

**Specificity:** Human, mouse

**Storage Conditions:** 5mC, mouse IgG, and primer sets should all be stored at -20°C (Avoid multiple freeze/thaw cycles as this may denature the antibody and degrade the primer sets)

**Source:** Mouse

**Type:** Monoclonal

**Purification:** Protein G (affinity purified)