

Datasheet for ABIN2668392

**anti-Histone 3 antibody (H3K4me2)****5** Images**2** Publications[Go to Product page](#)

## Overview

Quantity:	100 µg
Target:	Histone 3 (H3)
Binding Specificity:	H3K4me2
Reactivity:	Human, Mouse
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Histone 3 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Chromatin Immunoprecipitation (ChIP), Immunocytochemistry (ICC), Dot Blot (DB), ChIP DNA-Sequencing (ChIP-seq), Cleavage Under Targets and Release Using Nuclease (CUT&RUN), Cleavage Under Targets and Tagmentation (CUT&Tag)

## Product Details

Immunogen:	This Histone H3 dimethylLys4 antibody was raised against a synthetic peptide containing dimethylLys4 of human histone H3.
Clone:	MABI 0303
Isotype:	IgG1
Purification:	Protein G Chromatography

## Target Details

Target:	Histone 3 (H3)
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### Target Details

Alternative Name:	Histone H3 ( <a href="#">H3 Products</a> )
Molecular Weight:	17 kDa
Gene ID:	3020

### Application Details

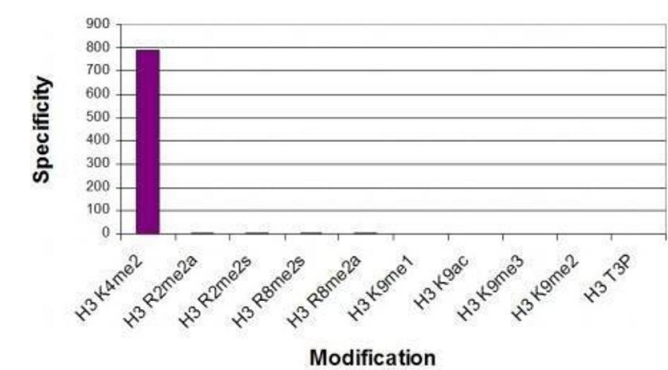
Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

### Handling

Concentration:	0.46 µg/µL
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Avoid repeated freeze/thaw cycles and keep on ice when not in storage.
Storage:	-20 °C
Storage Comment:	Antibodies in solution can be stored at -20 °C for 2 years.
Expiry Date:	6 months

### Publications

Product cited in:	<p>Valdez, Li, Murray, Ji, Liu, Popat, Champlin, Andersson: "Comparison of the cytotoxicity of cladribine and clofarabine when combined with fludarabine and busulfan in AML cells: Enhancement of cytotoxicity with epigenetic modulators." in: <b>Experimental hematology</b>, Vol. 43, Issue 6, pp. 448-61.e2, (2015) (<a href="#">PubMed</a>).</p> <p>Kimura, Hayashi-Takanaka, Goto, Takizawa, Nozaki: "The organization of histone H3 modifications as revealed by a panel of specific monoclonal antibodies." in: <b>Cell structure and function</b>, Vol. 33, Issue 1, pp. 61-73, (2008) (<a href="#">PubMed</a>).</p>
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### Protein Array

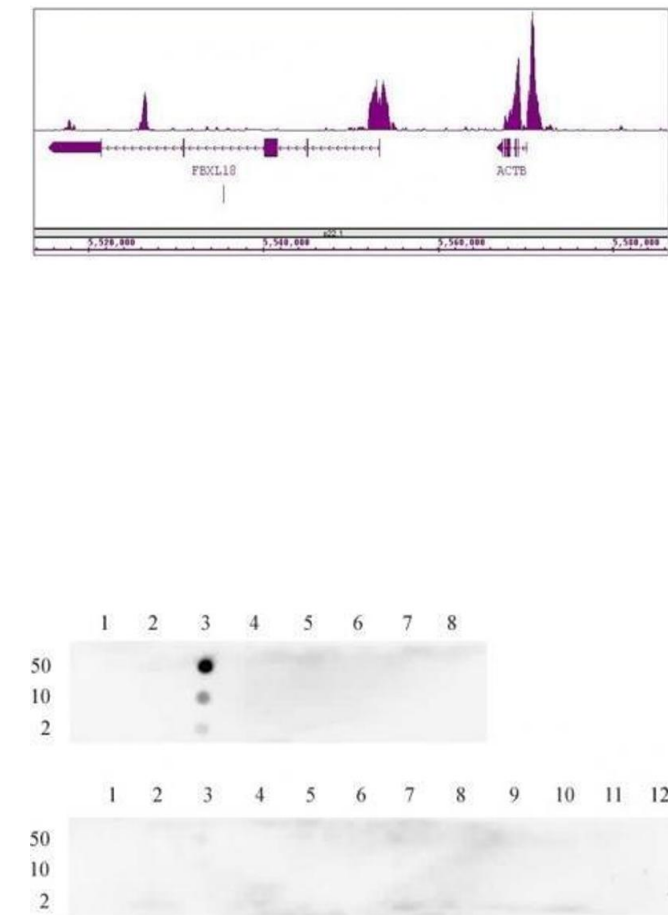
**Image 1.** Histone H3K4me2 antibody (mAb) specificity tested by peptide array analysis. Peptide array analysis was used to confirm the specificity of this antibody for its intended modification. Histone H3 dimethyl Lys4 antibody was applied at a dilution of 1:2,000 to Active Motif's MODified™ Histone Peptide Array (Catalog No. 13001). The arrays were scanned with ArrayAnalysis Software 7 and the results plotted. Specificity data is shown for the most reactive peptides and those related to the immunogen. Recognition of the H3 dimethyl Lys4 peptide is inhibited by Thr3 phosphorylation and blocked by a citrulline at position 2. Array Data File

### ChIP DNA-Sequencing

**Image 2.** Histone H3K4me2 antibody (mAb) tested by ChIP-Seq. ChIP was performed using the ChIP-IT® High Sensitivity Kit (Cat. No. 53040) with 15 ug of chromatin from a human medulloblastoma cell line and 4 µg of antibody. ChIP DNA was sequenced on the Illumina HiSeq and 12 million sequence tags were mapped to identify Histone H3K4me2 binding sites. The image shows binding across a region of chromosome 7. You can view the complete data set in the UCSC Genome Browser, starting at this specific location, [here](#).

### Dot Blot

**Image 3.** Histone H3K4me2 antibody (mAb) tested by dot blot analysis. Dot blot analysis was used to confirm the specificity of Histone H3 dimethyl Lys4 antibody (mAb) for dimethyl-Lys4 histone H3. Methylated peptides corresponding to the immunogen and related peptides were spotted onto PVDF and probed with the antibody at 1 µg/ml. The amount of peptide (picomoles) spotted is indicated next to each row. Top panel: Lane 1: Unmod H3 aa 2-9 peptide



lysine 4. Lane 2: Monomethyl lysine 4. Lane 3: Dimethyl lysine 4. Lane 4: Trimethyl lysine 4. Lane 5: Unmod H3 5-22 peptide. Lane 6: Monomethyl lysine 9. Lane 7: Dimethyl lysine 9. Lane 8: Trimethyl lysine 9. Bottom panel: Lane 1: dimethyl lysine 14. Lane 2: monomethyl lysine 18. Lane 3: dimethyl lysine 18. Lane 4: trimethyl lysine 18. Lane 5: unmod H3 aa 18-27 peptide. Lane 6: monomethyl lysine 23. Lane 7: dimethyl lysine 23. Lane 8: trimethyl lysine 23. Lane 9: unmod H3 aa 22-32 peptide. Lane 10: monomethyl lysine 27. Lane 11: dimethyl lysine 27. Lane 12: trimethyl lysine 27.

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN2668392.