

Mouse Histone H3K4me2 Antibody | anti-H3K4me2 antibody

AbFlex Histone H3K4me2 antibody (rAb)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA60293	Mouse	Human, Wide Range Predicted	Western Blot, Chromatin Immunoprecipitation, Immunoprecipitation, Chromatin Immunoprecipitation, Immunoprecipitation

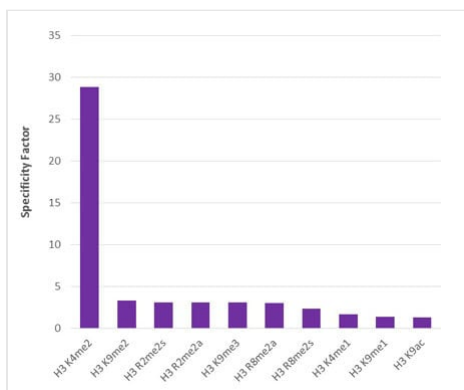
PRODUCT SYNONYMS

Histone H3K4me2; AbFlex Histone H3K4me2 antibody (rAb); anti-H3K4me2 antibody

PRODUCT SPECIFICATIONS

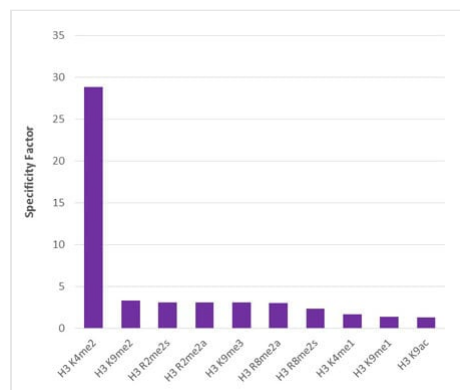
Host	Mouse
Reactivity	Human, Wide Range Predicted
Isotype	IgG2a
Purity/Purification	Protein A Chromatography
Form/Format	Purified IgG in 140mM Hepes, pH7.5, 70mM NaCl, 32mM NaOAc, 0.035% sodium azide, 30% glycerol. Sodium azide is highly toxic.
Concentration	1ug/ul (varies by lot)
Applicable Applications for anti-H3K4me2 antibody	WB (Western Blot), ChIP (Chromatin immunoprecipitation), ChIP (Chromatin immunoprecipitation)
Antibody Type	Recombinant Antibody
Conjugation	Methylated
Immunogen	This antibody was raised against a synthetic peptide containing dimethyl Lys4 of human histone H3.
Preparation and Storage	Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20 degree C for up to 2 years. Keep all reagents on ice when not in storage.1ug/ul

IMAGES



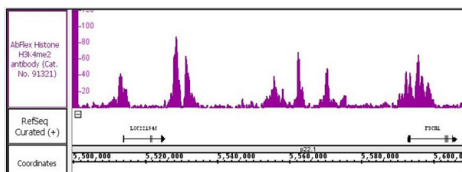
Application Data

AbFlexHistone H3K4me2 specificity tested by peptide array analysis. Peptide array analysis was used to confirm the specificity of this antibody for its intended modification. Histone H3K4me2 antibody was applied to MODified Histone Peptide Array . 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.



Application Data

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ChIP (Chromatin Immunoprecipitation)

AbFlex Histone H3K4me2 recombinant antibody (rAb) tested by ChIP-Seq Chromatin immunoprecipitation (ChIP) was performed using the ChIP-IT High Sensitivity Kit with 30 ug of HeLa cell chromatin and 5 ug of AbFlex Histone H3K4me2 antibody. ChIP DNA was sequenced on the Illumina NextSeq and 14.2 million sequence tags were mapped to identify Histone H3K4me2 binding sites on chromosome 7.

ADDITIONAL INFORMATION

Related Product Information for anti-H3K4me2 antibody

Short Description: AbFlex antibodies are recombinant antibodies (rAbs) that have been generated using defined DNA sequences to produce highly specific, reproducible antibodies. Each AbFlex antibody contains a 6xHis-tag, a Biotinylation Tag for enzymatic biotin conjugation using the biotin ligase, BirA, and a sortase recognition motif (LPXTG) to attach a variety of labels directly to the antibody including fluorophores, enzymatic substrates (HRP, AP), peptides, drugs as well as solid supports. Our AbFlex Histone H3K4me2 antibody (rAb) was raised in a Mouse host. It has been validated for use in Chromatin Immunoprecipitation, ChIP-Seq and Western blot; it has been shown to react with Human samples, but it is predicted that it will react with a wide range of sample types.

Background: AbFlex antibodies are recombinant antibodies (rAbs) that have been generated using defined DNA sequences to produce highly specific, reproducible antibodies. Each AbFlex antibody contains a 6xHis-tag, a Biotinylation Tag for enzymatic biotin conjugation using the biotin ligase, BirA, and a sortase recognition motif (LPXTG) to attach a variety of labels directly to the antibody including fluorophores, enzymatic substrates (HRP, AP), peptides, drugs as well as solid supports. AbFlex H3K4me2 antibody was expressed as full-length IgG with mouse immunoglobulin heavy and light chains (IgG2a isotype) in mammalian 293 cells. Histone H3 is one of the core components of the nucleosome. The nucleosome is the smallest subunit of chromatin and consists of 147 base pairs of DNA wrapped around an octamer of core histone proteins (two each of Histone H2A, Histone H2B, Histone H3 and Histone H4). Histone H1 is a linker histone, present at the interface between the nucleosome core and DNA entry/exit points. Histone H1 is responsible for establishing higher-order chromatin structure. Chromatin is subject to a variety of chemical modifications, including post-translational modifications of the histone proteins and the methylation of cytosine residues in the DNA. Reported histone modifications include acetylation, methylation, phosphorylation, ubiquitylation, glycosylation, ADP-ribosylation, carbonylation and SUMOylation; these modifications play a major role in regulating gene expression. The methylation of histones can occur on two different residues: arginine or lysine. Histone methylation can be associated with transcriptional activation or repression, depending on the methylated residue. Lysine 4 of histone H3 can be mono-, di- or trimethylated by different histone methyltransferases (HMTs) such as SET1 or ASH1. Methylation of Lys4 is often associated with transcriptional activation. The demethylase LSD1 is able to demethylate histone H3 Lys4.

Product Categories/Family for anti-H3K4me2 antibody

Primary Antibodies

NCBI AND UNIPROT INFORMATION

Molecular Weight	17kDa
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For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/mouse-human-antibody/histone-h3k4me2/60293>