Rabbit Histone H4K5ac Polyclonal Antibody | anti-H4K5ac antibody

Histone H4K5ac antibody (pAb)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA59886	**Rabbit**	**Human, Mouse, Wide Range Predicted**	**Western Blot, Immunofluorescence, Immunocytochemistry, Dot Blot, Chromatin Immunoprecipitation, Immunoprecipitation**

PRODUCT SYNONYMS

Histone H4K5ac; Polyclonal Antibody; Histone H4K5ac antibody (pAb); anti-H4K5ac antibody

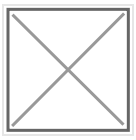
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Wide Range Predicted
Clonality	Polyclonal
Form/Format	Rabbit serum containing 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic. For your convenience, an IgG version of this antibody that was purified by Protein A Chromatography is also available.
Applicable Applications for anti-H4K5ac antibody	WB (Western Blot), IF (Immunofluorescence), ICC (Immunocytochemistry), DB (Dot Blot), ChIP (Chromatin immunoprecipitation)
Conjugation	Acetylated
Immunogen	This Histone H4 acetyl Lys5 antibody was raised against a peptide including acetyl-lysine 5 of histone H4.
Abs Residue	Lys
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

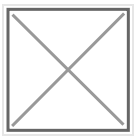
IMAGES

DB (Dot Blot)
Histone H4 acetyl Lys5 antibody tested by dot blot analysis. Dot blot analysis was used to confirm the specificity of Histone H4 acetyl Lys5 antibody for acetyl Lys5 histone H4. Acetylated peptides corresponding to the immunogen and related peptides were spotted onto PVDF and probed with the antibody at a dilution of 1:5,000. The amount of peptide (picomoles) spotted is indicated next to each row. Lane 1: acetyl-Lys5 peptide. Histone H4 acetyl Lys5 antibody tested by dot blot analysis. Dot blot analysis was used to confirm the specificity of Histone H4 acetyl Lys5 antibody for acetyl Lys5 histone H4. Acetylated peptides corresponding to the immunogen and related peptides were spotted onto PVDF and probed with the antibody at a dilution of 1:5,000. The amount of peptide (picomoles) spotted is indicated next to each row. Lane 1: acetyl-Lys5 peptide. Lane 2: unmodified Lys5 peptide. Lane 3: acetyl-Lys8 peptide. Lane 4: unmodified Lys8 peptide. Lane 5: acetyl-Lys12 peptide. Lane 6: unmodified Lys12 peptide. Lane 7: acetyl-Lys16 peptide. Lane 8: unmodified Lys16 peptide.Lane 2: unmodified Lys5 peptide. Lane 3: acetyl-Lys8 peptide. Lane 4: unmodified Lys8 peptide. Lane 5: acetyl-Lys12 peptide. Lane 6: unmodified Lys12 peptide. Lane 7: acetyl-Lys16 peptide. Lane 8: unmodified Lys16 peptide.

WB (Western Blot)
Histone H4 acetyl Lys5 antibody tested by Western blot. HeLa nuclear extract (20 ug per lane) probed with Histone H4 acetyl Lys5 polyclonal antibody (1:5,000). Lane 1: No treatment. Lane 2: Cells treated with sodium butyrate.



IF (Immunofluorescence)
Histone H4 acetyl Lys5 antibody tested by immunofluorescence. Top left: HeLa cells stained with Histone H4 acetyl Lys5 antibody (1:1,000). Top right: Same cells stained with alpha Tubulin mAb (Clone 5-B-1-2). Bottom left: Stained with DAPI. Bottom right: Merge of all 3 images.



ChIP (Chromatin Immunoprecipitation)
Histone H4 acetyl Lys5 antibody tested by ChIP. Chromatin IP performed using the ChIP-IT Express Kit and 50 ul of Ready-to-ChIP HeLa Chromatin per ChIP. Subsequent to the ChIP reaction, DNA was purified from the immunoprecipitated chromatin and a region of the human GAPDH promoter was amplified by PCR. Lane 1: PCR input control. Lane 2: ChIP using negative control rabbit IgG. Lane 3: ChIP using 10 ul of Histone H4 acetyl Lys5 antibody.

ChIP (Chromatin Immunoprecipitation)
Histone H4 acetyl Lys5 antibody tested by ChIP analysis. Chromatin IP performed using the ChIP-IT Express Kit and HeLa Chromatin (1.5 x 10^6 cell equivalents per ChIP) using 10 ug of Histone H4 acetyl Lys5 pAb or the equivalent amount of rabbit IgG as a negative control. Real time, quantitative PCR (RT-qPCR) was performed on DNA purified from each of the ChIP reactions using a primer pair specific for the indicated gene. Data are presented as Fold Enrichment of the ChIP antibody signal versus the negative control IgG using the ddCT method.

ADDITIONAL INFORMATION

Related Product Information for anti-H4K5ac antibody	Short Description: Our Histone H4K5ac antibody (pAb) was raised in a Rabbit host. It has been validated for use in Chromatin Immunoprecipitation, Dot blot, Immunocytochemistry, Immunofluorescence and Western blot; it has been shown to react with Human and Mouse samples, but it is predicted that it will react with a wide range of sample types. Background: Histone H4 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; it 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; they play a major role in regulating gene expression. Lysine N-epsilon-acetylation is a dynamic, reversible and tightly regulated protein and histone modification that plays a major role in chromatin remodeling and in the regulation of gene expression in various cellular functions. Histone H4 molecules acetylated at Lys5 or Lys8 are distributed in overlapping, but non-identical, islands throughout the euchromatic chromosome arms.
Product Categories/Family for anti-H4K5ac antibody	Primary Antibodies

NCBI AND UNIPROT INFORMATION

NCBI GI #	28173560
NCBI GeneID	121504
NCBI Accession #	NP_778224; AB_2793267
NCBI GenBank Nucleotide #	NM_175054.2
UniProt Accession #	P62805; P02304; P02305; Q6DRA9; Q6FGB8; Q6NWP7; A2VCL0; Q0VAS5; Q6B823
Molecular Weight	11,367 Da
NCBI Official Full Name	histone H4
NCBI Official Synonym Full Names	histone cluster 4, H4
NCBI Official Symbol	HIST4H4

NCBI Official Synonym Symbols	H4/p; HIST1H4A; HIST1H4B; HIST1H4C; HIST1H4D; HIST1H4E; HIST1H4F; HIST1H4H; HIST1H4I; HIST1H4J; HIST1H4K; HIST1H4L; HIST2H4A; HIST2H4B; MGC24116
NCBI Protein Information	histone H4; histone 4, H4; OTTHUMP00000239323
UniProt Protein Name	Histone H4
UniProt Gene Name	**HIST1H4A**
UniProt Synonym Gene Names	H4/A; H4FA
UniProt Entry Name	H4_HUMAN

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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