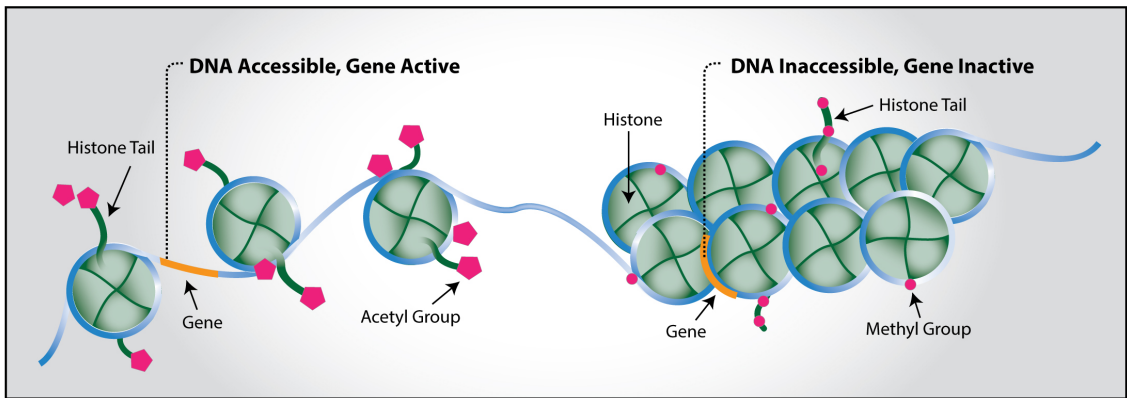


Antibodies for Histone Modifications

The antibodies you need to study a multitude of histone modifications and their effects

Histones are the most prominent DNA-interacting proteins. As the primary protein constituent of chromatin, forming complexes with DNA to compact our large genome for efficient nuclear organization, histones support critical cellular processes such as transcription, DNA replication, and DNA repair through diverse post-translational modifications that regulate their interactions with DNA and other nuclear proteins. Consequently, anomalous changes in histone epigenetics can lead down the road to assorted pathological conditions, making histone modifications and their associated modifying enzymes (e.g., HDACs) suitable diagnostic, prognostic, and therapeutic tools in the fight against human disease.



The accessibility of DNA in chromatin often give clues about the possible histone modifications. For instance, in the illustration above, acetyl groups tend to occur where DNA is open and accessible, and while methyl groups can occur in either, in this case, they are shown as being present among inaccessible DNA.

Histone marks come in a variety of chemistries, collectively constituting a so-called “histone code” involved in epigenetic chromatin regulation. Covalent modifications to histone tails, including methylation, acetylation, ubiquitination, sumoylation, citrullination, and phosphorylation, are well-correlated with chromatin structure (euchromatin versus heterochromatin) and accessibility, which in turn impacts transcriptional activation/silencing. For instance, histone acetylation (e.g., H3K9ac, H3K14ac, H3K27ac) has been linked to an open chromatin configuration and active gene expression state. Methylated histone marks like H3K4me1, H3K4me2, H3K4me3, H3K36me3, and H3K79me2 have been identified as transcription activators, while tri-methylated H3K9 and H3K27 are known to play repressive roles.

EpigenTek offers a wide selection of antibodies against these and other histone marks that have been validated for use in the most common research applications, including IF, IHC, WB, and ChIP. Browse our extensive catalog of modified histone antibodies for your target of interest, or choose from a number of convenient, pre-defined **histone modification antibody panel packs**.

A Selection of Our Most Popular Histone Modification Antibodies:

Catalog #	Name	Antibody Details
A-3706	Histone H3R8 Dimethyl Symmetric (H3R8me2s) Polyclonal Antibody	Applications: ChIP, ChIPseq, IF, IHC, IP, WB Host: Rabbit Reactivity: Broad Range, Human, Mouse, Rat
A-4033	Histone H3K4me3 (H3K4 Trimethyl) Polyclonal Antibody	Applications: ChIP, ChIPseq, IF, IHC, IP, WB Host: Rabbit Reactivity: Broad Range, Human, Mouse, Rat
A-4036	Histone H3K9me3 (H3K9 Trimethyl) Polyclonal Antibody	Applications: ChIP, ChIPseq, IF, IHC, IP, WB Host: Rabbit Reactivity: Broad Range, Human, Mouse, Rat
A-4039	Histone H3K27me3 (H3K27 Trimethyl) Polyclonal Antibody	Applications: ChIP, ChIPseq, IF, IHC, IP, WB Host: Rabbit Reactivity: Broad Range, Human, Mouse, Rat

A-4042	Histone H3K36me3 (H3K36 Trimethyl) Polyclonal Antibody	Applications: ChIP, ChIPseq, IF, IHC, IP, WB Host: Rabbit Reactivity: Broad Range, Human, Mouse, Rat
A-3718	Histone H4R3 Dimethyl Symmetric (H4R3me2s) Polyclonal Antibody	Applications: IF, IHC, WB Host: Rabbit Reactivity: Broad Range, Human, Mouse, Rat
A-4022	Histone H3K9ac (Acetyl H3K9) Polyclonal Antibody	Applications: ChIP, ChIPseq, IF, IHC, IP, WB Host: Rabbit Reactivity: Broad Range, Human, Mouse, Rat
A-4023	Histone H3K14ac (Acetyl H3K14) Polyclonal Antibody	Applications: ChIP, ChIPseq, IF, IHC, IP, WB Host: Rabbit Reactivity: Broad Range, Human, Mouse, Rat
A-4026	Histone H3K56ac (Acetyl H3K56) Polyclonal Antibody	Applications: ChIP, ChIPseq, IF, IHC, IP, WB Host: Rabbit Reactivity: Broad Range, Human, Mouse, Rat
A-4703	SIRT3 Polyclonal Antibody	Applications: IHC, WB Host: Rabbit Reactivity: Human, Mouse

See All of Our Histone Modification Antibodies

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DNA, Protein, & Chromatin Preparation
DNA Methylation & Demethylation Analysis
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