

Product datasheet for **TA347157**

H3FA (HIST1H3A) Mouse Monoclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IF
Recommended Dilution:	ChIP (1-5 µg/ChIP); ELISA (1:3,000); Western blotting (1:1,000 - 1:2,000); Immunofluorescence (1:500)
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	The immunogen for anti-H3K27ac antibody: histone H3 acetylated at lysine 27 (H3K27ac), using a KLH-conjugated synthetic peptide
Concentration:	lot specific
Purification:	Protein A purified monoclonal antibody in PBS containing 0.05% azide.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	histone cluster 1, H3a
Database Link:	NP_003520 Entrez Gene 8350 Human P68431

Background: Histones are the main constituents of the protein part of chromosomes of eukaryotic cells. They are rich in the amino acids arginine and lysine and have been greatly conserved during evolution. Histones pack the DNA into tight masses of chromatin. Two core histones of each class H2A, H2B, H3 and H4 assemble and are wrapped by 146 base pairs of DNA to form one octameric nucleosome. Histone tails undergo numerous post-translational modifications, which either directly or indirectly alter chromatin structure to facilitate transcriptional activation or repression or other nuclear processes. In addition to the genetic code, combinations of the different histone modifications reveal the so-called "histone code". Histone methylation and demethylation is dynamically regulated by respectively histone methyl transferases and histone demethylases.

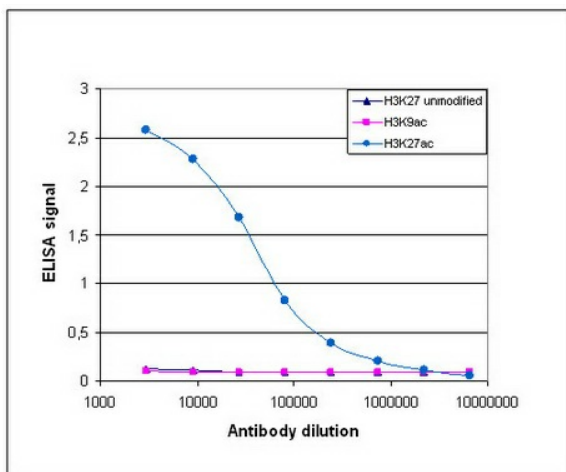


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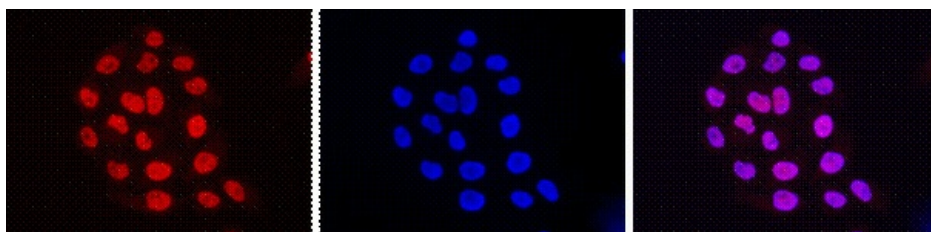
Synonyms: A; H3; H3FA

Protein Pathways: Systemic lupus erythematosus

Product images:



Cross reactivity of the antibody against H3K27ac
 To test the specificity an ELISA was performed using a serial dilution of the antibody against H3K27ac. The wells were coated with peptides containing the unmodified H3K27 region as well as the acetylated H3K27 and the acetylated H3K9. Image shows a high specificity of the antibody for the peptide containing the modification of interest.



HeLa cells were stained with the antibody against H3K27ac and with DAPI. Cells were fixed with 4% formaldehyde for 10' and blocked with PBS/TX-100 containing 5% normal goat serum and 1% BSA. The cells were immunofluorescently labelled with the H3K27ac antibody (left) diluted 1:500 in blocking solution followed by an anti-mouse antibody conjugated to Alexa594. The middle panel shows staining of the nuclei with DAPI. A merge of the two stainings is shown on the right.