

Product datasheet for **TA347176**

H3FA (HIST1H3A) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	Dot, ELISA, WB
Recommended Dilution:	ChIP (1 - 5 µl/ChIP); ELISA (1:100 ?? 1:1,000); Dot blotting (1:1,000); Western blotting (1:250)
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	The immunogen for anti-H3 pan antibody: histone H3, using two KLH-conjugated synthetic peptides containing an unmodified sequence from the central part and from the C-terminus of the protein.
Concentration:	lot specific
Purification:	Whole antiserum from rabbit 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. Histones play a central role in the regulation of transcription, DNA repair, DNA replication and chromosomal stability. These different functions are established via a complex set of post-translational modifications which either directly or indirectly alter chromatin structure and DNA accessibility to facilitate transcriptional activation or repression or other nuclear processes.

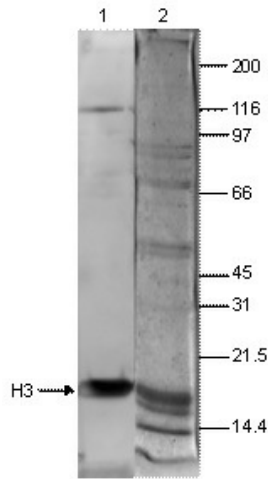


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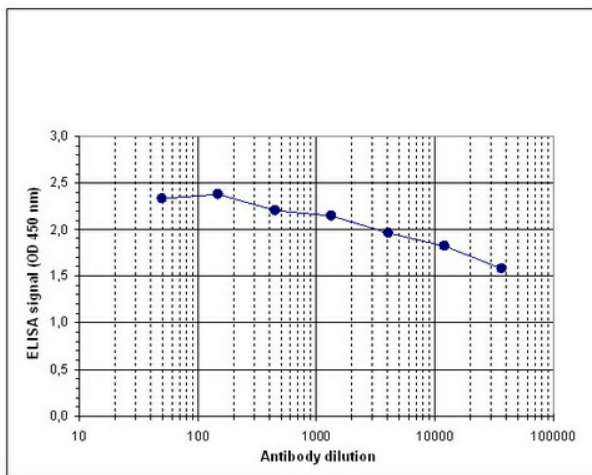
Synonyms: A; H3; H3FA

Protein Pathways: Systemic lupus erythematosus

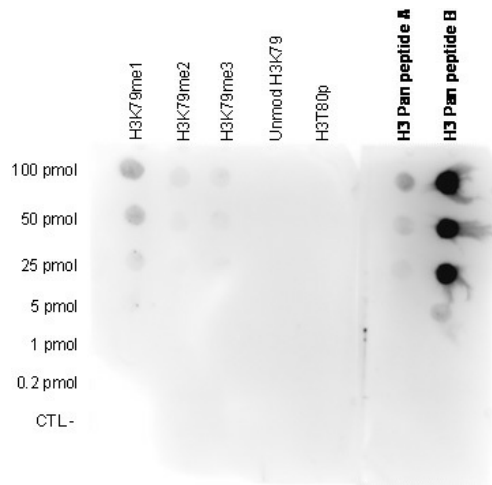
Product images:



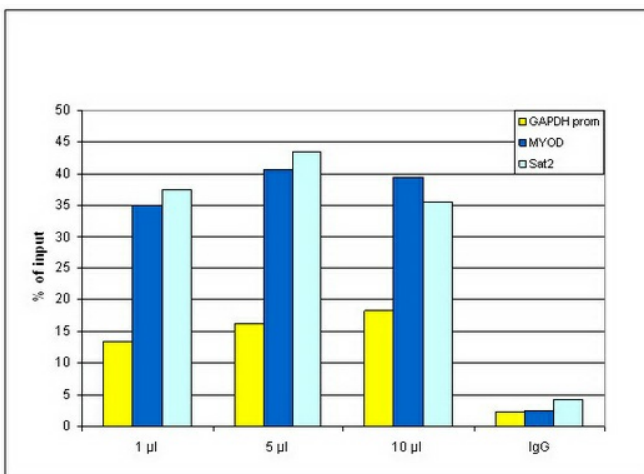
WB using the antibody against H3pan diluted 1:250 in TBS-Tween containing 5% skimmed milk (lane 1). Lane 2 shows a coomassie blue staining of the gel. The position of the protein of interest is indicated on the left; the marker (in kDa) is shown on the right.



Determination of the titer To determine the titer of the antibody, an ELISA was performed using a serial dilution of the antibody against H3pan. By plotting the absorbance against the antibody dilution (Figure 1), the titer of the antibody was estimated to be 1:900,000.



A Dot Blot analysis was performed to test the cross reactivity of the antibody against H3pan with the peptides used for immunization of the rabbit and other peptides containing different modifications or unmodified sequences of histone H3. One hundred to 0.2 pmol of the respective peptides were spotted on a membrane. The antibody was used at a dilution of 1:1,000. Image shows a high specificity of the antibody for one of the unmodified peptides.



ChIP assays using HeLa cells: ChIP⁺ kit, using sheared chromatin from 10,000 cells per IP. A titration of the antibody consisting of 1, 5, and 10 ul per ChIP experiment was analysed. IgG (5 ug/IP) was used as negative IP control. QPCR was performed with primers for the GAPDH promoter, MYOD, and the heterochromatin marker Sat2. Figure 4 shows the recovery, expressed as a % of input (the relative amount of IP'd DNA compared to input DNA after qPCR analysis).