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Product datasheet for TA386428

H4 Rabbit Monoclonal Antibody [Clone ID: KM-2]

Product data:

Product Type:	Primary Antibodies
Clone Name:	KM-2
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG, kappa
Clonality:	Monoclonal
Immunogen:	KM-2 antibody was derived from an MRL/lpr lupus mouse.
Specificity:	KM-2 antibody recognizes the N-terminal peptides 1-20 of histone H2A and 1-29 of histone H4 which have a large sequence homology (van Bruggen et al., 1997; pmid: 9027774). Histone H4 acetylation on lysines 8, 12 and 16 significantly increases the antibody's binding while the acetylation at K5 decreases it (Dieker et al., 2007; pmid: 17530637). The antibody KM-2 shows significant increase in activity with histone H4 when it is acethylated on lysines 8, 12 and 16 which are hyperacethylated in conditions, such as lupus (SLE); and thus KM-2 can be used in the detection of the apoptosis-induced histone modifications characteristic of lupus and in the analysis of its pathogenesis (Dieker et al., 2007; pmid: 17530637). This antibody was successfully used to identify both Histone H4 as well as H2A in the extracts of Jurkat cells via Western blot, showing considerable increase in activity in cells with induced apoptosis leading to hyperacethylation (Dieker et al., 2007; pmid: 17530637). Similar results were achieved for the immunofluorescence staining of Jurkat cells. The enhanced reactivity of KM-2 with apoptotic H4 and apoptotic H2A was not Jurkat cell specific and was also observed for the monocytic U937 cell line which indicated its general applicability (Dieker et al., 2007; pmid: 17530637). Analogous reselts were also achieved during the ELISA analysis of plasma samples of (diseased) MRL/lpr lupus mice, with the visisble activity enhancement in the sick, apoptotic specimens (Dieker et al., 2007; pmid: 17530637). Finally, KM-2 (KM2) antibody was used to identify histones in the immune deposits in kidney biopsy samples of DPGN (Diffuse proliferative glomerulonephritis) patients (van Bruggen et al., 1997; pmid: 9027774).
Formulation:	PBS with 0.02% Proclin 300.

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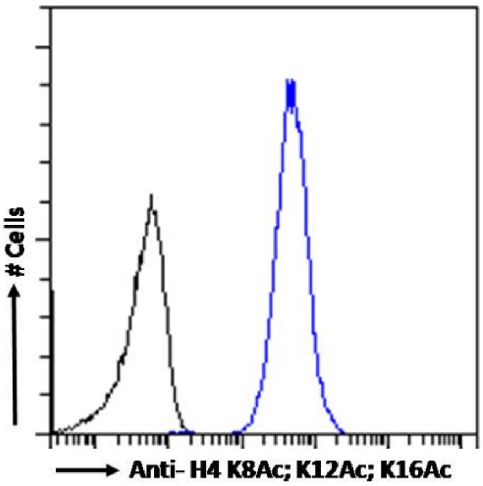
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Please store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C. Avoid freeze and thaw cycles.
Stability:	3 years from dispatch.
Note:	This chimeric rabbit antibody was made using the variable domain sequences of the original Mouse IgG2a format, for improved compatibility with existing reagents, assays and techniques.

Product images:



Flow cytometry using the anti-H4 K8Ac; K12Ac; K16Ac antibody KM-2 (TA386428). HeLa cells were fixed using 2% PFA and stained with anti-unknown specificity antibody ([TA385792]; isotype control, black line) or the rabbit IgG1 version of KM-2 (TA386428, blue line) at a dilution of 1:100 for 1h at RT. After washing, the bound antibody was detected using a goat anti-rabbit IgG AlexaFluor® 488 antibody at a dilution of 1:1000 and cells analyzed using a FACSCanto flow-cytometer.