H2BK20ac Recombinant Rabbit Monoclonal Antibody (RM235)

Product Details	
Size	100 µg
Species Reactivity	Human, Non-human primate
Host/Isotype	Rabbit / IgG
Expression system	HEK293 cells
Class	Recombinant Monoclonal
Type	Antibody
Clone	RM235
Conjugate	Unconjugated
Immunogen	Acetyl-peptide corresponding to Acetyl-Histone H2B (Lys20).
Form	Liquid
Concentration	1 mg/mL
Purification	Protein A
Storage buffer	PBS, pH 7.2-7.4, with 1% BSA, 50% glycerol
Contains	0.09% sodium azide
Storage conditions	-20° C, Avoid Freeze/Thaw Cycles
RRID	AB_2661895

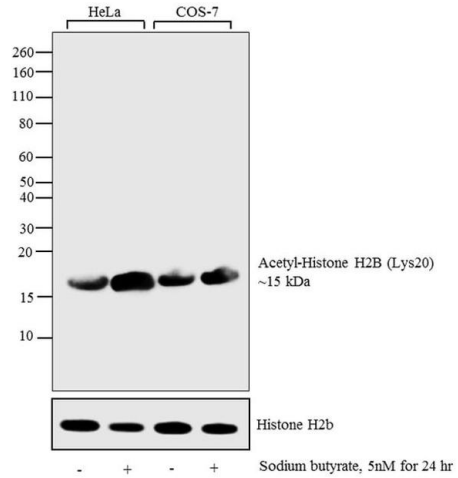
Applications	Tested Dilution	Publications
Western Blot (WB)	0.5-2 µg/mL	-
Immunocytochemistry (ICC/IF)	1-2 µg/mL	-
ELISA (ELISA)	0.2-1 µg/mL	-
ChIP assay (ChIP)	1.5 µg/1x10^6 cells	-
Luminex (LUM)	0.1-0.5 µg/mL	-

Product Specific Information

This antibody reacts to Histone H2B acetylated at Lysine 20 (K20ac). No cross reactivity with non-modified Lysine 20 or other acetylated Lysines in histone H2B.

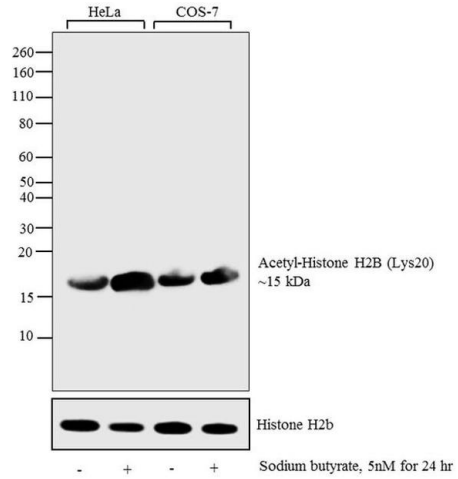
Recombinant rabbit monoclonal antibodies are produced using in vitro expression systems. The expression systems are developed by cloning in the specific antibody DNA sequences from immunoreactive rabbits. Then, individual clones are screened to select the best candidates for production. The advantages of using recombinant rabbit monoclonal antibodies include: better specificity and sensitivity, lot-to-lot consistency, animal origin-free formulations, and broader immunoreactivity to diverse targets due to larger rabbit immune repertoire.

Product Images For H2BK20ac Recombinant Rabbit Monoclonal Antibody (RM235)



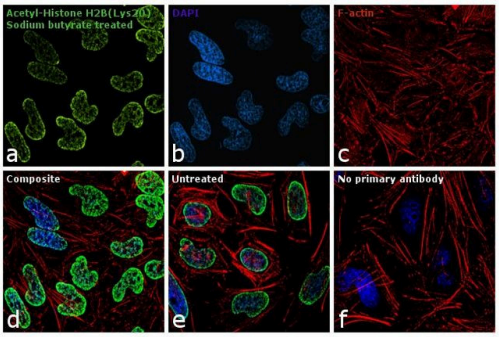
H2BK20ac Antibody (MA5-24698)

Altered expression of proteins upon cell treatment demonstrates antibody specificity. Western blot analysis of Acetyl-Histone H2B (Lys20) using Acetyl-Histone H2B (Lys20) Monoclonal Antibody (Product # MA5-24698) shows increased expression of Acetyl-Histone H2B (Lys20) in HeLa and COS-7 cell lines upon sodium butyrate treatment. {TM}



H2BK20ac Antibody (MA5-24698) in WB

Western blot analysis was performed on acid extracts (20 µg lysate) of HeLa (Lane 1), HeLa treated with sodium butyrate (5 nM for 24 hr) (Lane 2), COS-7 (Lane 3), and COS-7 treated with sodium butyrate (5 nM for 24 hr) (Lane 4). The blot was probed with Anti-Acetyl-Histone H2B (Lys20) monoclonal antibody (Product # MA5-24698, 1 µg/mL) and detected by chemiluminescence using Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, HRP conjugate (Product # A27036, 0.25 µg/mL, 1:4000 dilution). A 15 kDa band corresponding to Acetyl-Histone H2B (Lys20) was observed across the cell lines tested and enhanced upon treatment.



H2BK20ac Antibody (MA5-24698) in ICC/IF

Immunofluorescence analysis of Acetyl-Histone H2B (Lys20) was performed using 70% confluent log phase HeLa cells treated with sodium butyrate. The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 1% BSA for 1 hour at room temperature. The cells were labeled with Acetyl-Histone H2B (Lys20) Rabbit Monoclonal Antibody (RM235)(Product # MA5-24698) at 5 µg/mL in 0.1% BSA, incubated overnight at 4 degree Celsius and then labeled with Goat anti-Rabbit IgG (Heavy Chain) Superclonal™ Secondary Antibody, Alexa Fluor® 488 conjugate (Product # A27034) at a dilution of 1:2000 for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade® Gold Antifade Mountant with DAPI (Product # S36938). F-actin (Panel c: red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing nuclear localization. Panel e represents the untreated cells with relatively lower expression of Acetyl-Histone H2B (Lys20). Panel f shows control cells with no primary antibody to assess background. The images were captured at 60X magnification.

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