ARG57200
anti-Histone H2A.Z acetyl (Lys7) antibody [RM222]

Package: 50 µg
Store at: -20°C

Summary

Product Description	Rabbit Monoclonal antibody [RM222] recognizes Histone H2A.Z acetyl (Lys7)
Tested Reactivity	Hu
Tested Application	ICC/IF, WB
Specificity	This antibody reacts to Histone H2A.Z acetylated at Lysine 7 (K7ac). No cross reactivity with non-modified Lysine 7 or other acetylated Lysines in histone H2A.
Host	Rabbit
Clonality	Monoclonal
Clone	RM222
Isotype	IgG
Target Name	Histone H2A.Z
Species	Others
Immunogen	An acetyl-peptide corresponding to Acetyl-Histone H2A.Z (Lys7).
Conjugation	Un-conjugated
Alternate Names	H2A/z; H2A.Z-1; H2AZ; Histone H2A.Z; H2A.z

Application Instructions

Application table

Application	Dilution
ICC/IF	1 - 2 µg/ml
WB	0.5 - 2 µg/ml

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

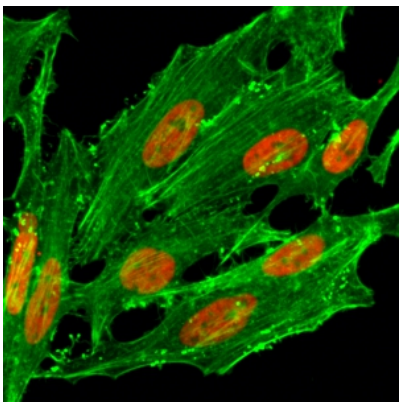
Form	Liquid
Purification	Purification with Protein A.
Buffer	PBS, 0.09% Sodium azide, 50% Glycerol and 1% BSA.
Preservative	0.09% Sodium azide
Stabilizer	50% Glycerol and 1% BSA
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

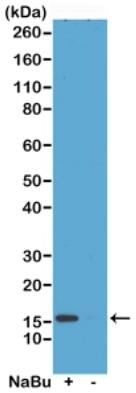
Database links	GeneID: 3015 Human Swiss-port # P0C0S5 Human
Gene Symbol	H2AFZ
Gene Full Name	H2A histone family, member Z
Background	Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Nucleosomes consist of approximately 146 bp of DNA wrapped around a histone octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fiber is further compacted through the interaction of a linker histone, H1, with the DNA between the nucleosomes to form higher order chromatin structures. This gene encodes a replication-independent member of the histone H2A family that is distinct from other members of the family. Studies in mice have shown that this particular histone is required for embryonic development and indicate that lack of functional histone H2A leads to embryonic lethality. [provided by RefSeq, Jul 2008]
Function	Variant histone H2A which replaces conventional H2A in a subset of nucleosomes. Nucleosomes wrap and compact DNA into chromatin, limiting DNA accessibility to the cellular machineries which require DNA as a template. Histones thereby play a central role in transcription regulation, DNA repair, DNA replication and chromosomal stability. DNA accessibility is regulated via a complex set of post-translational modifications of histones, also called histone code, and nucleosome remodeling. May be involved in the formation of constitutive heterochromatin. May be required for chromosome segregation during cell division. [UniProt]
PTM	Monoubiquitination of Lys-122 gives a specific tag for epigenetic transcriptional repression. Acetylated on Lys-5, Lys-8 and Lys-12 during interphase. Acetylation disappears at mitosis (By similarity). Monomethylated on Lys-5 and Lys-8 by SETD6. SETD6 predominantly methylates Lys-8, lys-5 being a possible secondary site. Not phosphorylated.

Images



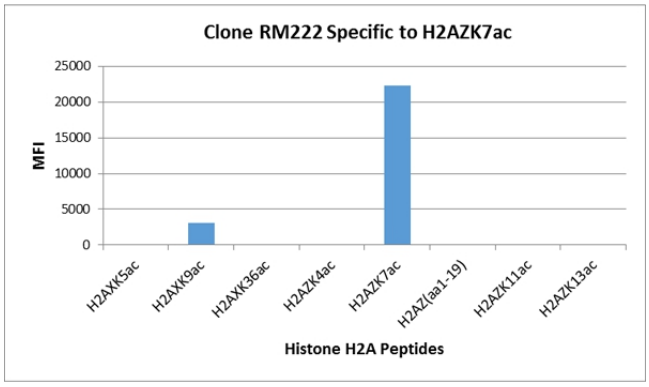
ARG57200 anti-Histone H2A.Z acetyl (Lys7) antibody [RM222] ICC/IF image

Immunofluorescence: HeLa cells treated with sodium butyrate, stained with ARG57200 anti-Histone H2A.Z acetyl (Lys7) antibody [RM222] (red). Actin filaments have been labeled with fluorescein phalloidin (green).



ARG57200 anti-Histone H2A.Z acetyl (Lys7) antibody [RM222] WB image

Western blot: Acid extracts from HeLa cells treated (+) or untreated (-) with sodium butyrate, stained with ARG57200 anti-Histone H2A.Z acetyl (Lys7) antibody [RM222] at 0.5 µg/ml, showed a band of histone H2A.Z acetylated at Lysine 7 in treated HeLa.



ARG57200 anti-Histone H2A.Z acetyl (Lys7) antibody [RM222] Specificity test image

ARG57200 anti-Histone H2A.Z acetyl (Lys7) antibody [RM222] specifically reacts to Histone H2A.Z acetylated at Lysine 7 (K7ac). No cross reactivity with non-modified Lysine 7 or other acetylated Lysines in histone H2A.