PRODUCT INFORMATION

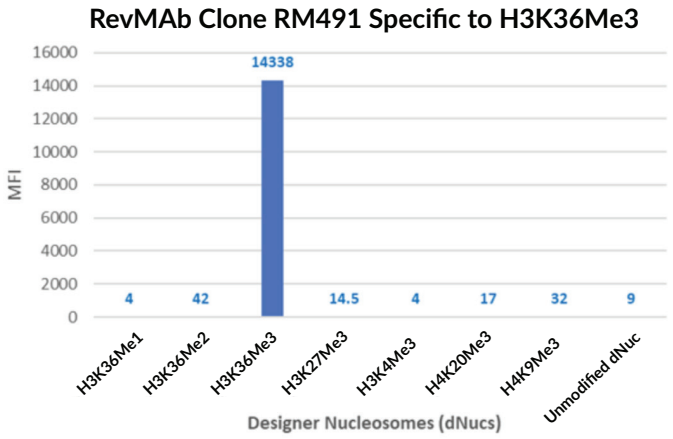
Histone H3K36Me3 Rabbit Monoclonal Antibody (Clone RM491)

Item No. 42795

Overview and Properties

Contents:	This vial contains 100 µg of protein A-affinity purified monoclonal antibody.
Synonym:	Trimethylated Histone 3 Lysine 36
Immunogen:	Peptide corresponding to H3K36Me3
Cross Reactivity:	(+) H3K36Me3; (-) H3K36Me1, H3K36Me2, H3K27Me3, H4K20Me3, H4K9Me3
Species Reactivity:	(+) Human, vertebrates
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Concentration:	1.0 mg/ml
Clone:	RM491
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA, Chromatin immunoprecipitation (ChiP), and multiplex-based assay; the recommended starting concentration is 0.2-1 µg/ml for ELISA, 2-10 µg/ml for ChiP, and 0.1-0.5 µg/ml for mulitplex-based assay. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Luminex of Designer Recombinant Nucleosomes (dNucs) with Histone H3K36Me3 Rabbit Monoclonal Antibody (Clone RM491). Unmodified or modified dNucs containing lysine methylations were used.

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Description

Histone 3 is a nuclear protein and a component of the nucleosome core, a basic unit of chromatin, that is essential for organizing genomic DNA in eukaryotic nuclei.[1] It is a globular protein that contains a histone fold domain with a C-terminal α-helix that facilitates nucleosome interactions and chromatin compaction, as well as an unstructured N-terminal tail that extends outside of the nucleosome core, both of which are subject to various post-translational modifications (PTMs), including ubiquitination, acetylation, methylation, and phosphorylation.[1-3] Histone H3 has a key role in transcriptional regulation.[4] Increased nucleosome levels of trimethylated lysine 36 on histone 3 (H3K36Me3) are required for efficient DNA damage and nucleotide mismatch repair, DNA transcription, and repressing heterochromatin formation.[5-7] Increased tumor levels of histone H3K36Me3 are correlated with increased tumor size, frequency of lymph node metastasis, and survival in patients with esophageal squamous cell carcinoma.[8] Cayman's Histone H3K36Me3 Rabbit Monoclonal Antibody (Clone RM491) can be used for ELISA, chromatin immunoprecipitation (ChiP), and multiplex-based assay applications.

References

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