

Purified anti-Histone H4 Trimethyl (Lys 20) Antibody (Previously Covance catalog# MMS-5288)

Catalog# / Size	827701 / 100 µL
Clone	6F8-D9
Regulatory Status	RUO
Other Names	Histone H4, histone 1, H4a, H4 histone family, member A, H4K20me3
Previously	Covance Catalog# MMS-5288
Isotype	Mouse IgG1, κ
Description	<p>Histone proteins are classified into core histones (H2A, H2B, H3, H4) and linker histones (H1, H5). Core histones form an octamer, which contains two H2A-H2B dimers and one H3-H4 tetramer. Core histones are predominantly globular except for the unstructured N-terminal tails. Posttranslational modifications, such as acetylation, methylation, phosphorylation, ubiquitination, SUMOylation and ADP-ribosylation occur in histone tails.</p> <p>Histone modifications induce changes of chromatin structure and thereby affect the accessibility of transcription factors, nuclear proteins and enzymes to genomic DNA, resulting in gene activation or repression. It is known that histone modifications play critical roles in DNA repair, DNA replication, transcription regulation, alternative splicing and chromosome condensation and some diseases including autoimmune diseases and cancers.</p>

Product Details

Verified Reactivity	Human, Mouse, Rat
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	This monoclonal antibody was raised against a synthetic peptide conjugated to KLH containing trimethylated lysine 20 of human Histone H4
Formulation	Phosphate-buffered solution.
Preparation	The antibody was purified by affinity chromatography.
Concentration	1 mg/mL
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Please note the storage condition for this antibody has been changed from -20°C to between 2°C and 8°C. You can also check your vial or your CoA to find the most accurate storage condition for this antibody.
Application	IHC-P - Quality tested WB - Verified
Recommended Usage	Each lot of this antibody is quality control tested by formalin-fixed paraffin-embedded immunohistochemical staining. For immunohistochemistry, a concentration range of 2.0 - 10 µg/mL is suggested. For Western blotting, the suggested use of this reagent is 0.5 - 1.0 µg/mL. It is recommended that the reagent be titrated for optimal performance for each application.
Application References (PubMed link indicates BioLegend citation)	1. Botuyan MV, <i>et al.</i> 2006. <i>Cell</i> . 127:1361. (WB)
RRID	AB_2564914 (BioLegend Cat. No. 827701)

Antigen Details

Structure	Histone proteins H3 and H4 bind to form a tetramer. This tetramer further combines with two H2a-H2b dimers to form the compact Histone octamer core.
Distribution	Histone H4 is ubiquitously expressed in all cells.
Function	Transcription regulation, DNA repair, DNA replication, chromosomal stability, silencing of repetitive DNA and transposons.
Interaction	Various transcription factors.
Biology Area	Cancer Biomarkers, Cell Biology, Chromatin Remodeling/Epigenetics, Neuroscience, Transcription Factors
Antigen References	<ol style="list-style-type: none"> 1. Chen HM, <i>et al.</i> 2015. <i>Epigenetics and Dermatology</i> 409. 2. Bhasin M, <i>et al.</i> 2006. <i>J. Comput. Biol.</i> 13:102. 3. Nelson DM, <i>et al.</i> 2016. <i>Genome Biol.</i> 17:158.
Gene ID	8359

Related Protocols

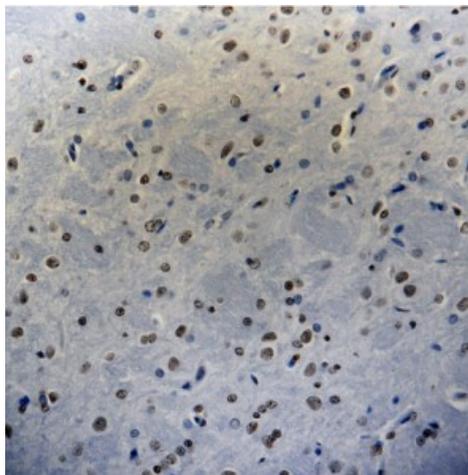
[Immunohistochemistry Protocol for Frozen Sections](#)

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

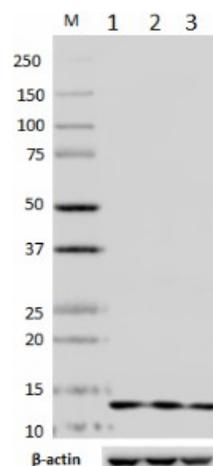
Other Formats

Purified anti-Histone H4 Trimethyl (Lys 20), Go-ChIP-Grade™ Purified anti-Histone H4 Trimethyl (Lys 20), HRP anti-Histone H4 Trimethyl (Lys 20)

Product Data



IHC staining of purified anti-Histone H4 Trimethyl (Lys 20) antibody (clone 6F8-D9) on formalin-fixed paraffin-embedded rat brain tissue. Following antigen retrieval using Sodium Citrate H.I.E.R., the tissue was incubated with 10 µg/mL of the primary antibody overnight at 4°C. BioLegend's Ultra-Streptavidin (USA) HRP kit (Multi-Species, DAB, Cat. No. 929901) was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective.



Western blot of purified anti-Histone H4 Trimethyl (Lys 20) antibody (clone 6F8-D9). Lane M: Molecular weight marker; Lane 1: 15 µg of Jurkat cell lysate; Lane 2: 15 µg of RAW264.7 cell lysate; Lane 3: 15 µg of UMR106 cell lysate. The blot was incubated with 0.5 µg/mL of the primary antibody overnight at 4°C, followed by incubation with HRP labeled goat anti-mouse IgG (Cat. No. 405306). HRP anti-β-actin antibody (clone 2F1-1, Cat. No. 643807) was used as a loading control (bottom blot). The bands were visualized using chemiluminescence detection.

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