

HRP anti-Histone H4 Trimethyl (Lys 20) Antibody

Catalog# / Size	827705 / 25 µg 827706 / 100 µg
Clone	6F8-D9
Regulatory Status	RUO
Other Names	Histone H4, histone 1, H4a, H4 histone family, member A, H4K20me3
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	This antibody is provided in 50% glycerol in aqueous buffered solutions with preservatives.
Preparation	The antibody was purified by affinity chromatography and conjugated with HRP under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	Upon receipt, the antibody solution should be stored undiluted at -20°C, and protected from prolonged exposure to light.
Application	IHC-P - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by formalin-fixed paraffin-embedded immunohistochemical staining. For immunohistochemistry, a concentration of 5.0 µg/ml is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	This antibody is effective in immunohistochemistry (IHC) and Western blotting (WB).
Application References	1. Botuyan MV, <i>et al.</i> 2006. <i>Cell</i> . 127:1361. (WB)
(PubMed link indicates BioLegend citation)	
RRID	AB_2810715 (BioLegend Cat. No. 827705) AB_2810716 (BioLegend Cat. No. 827706)

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

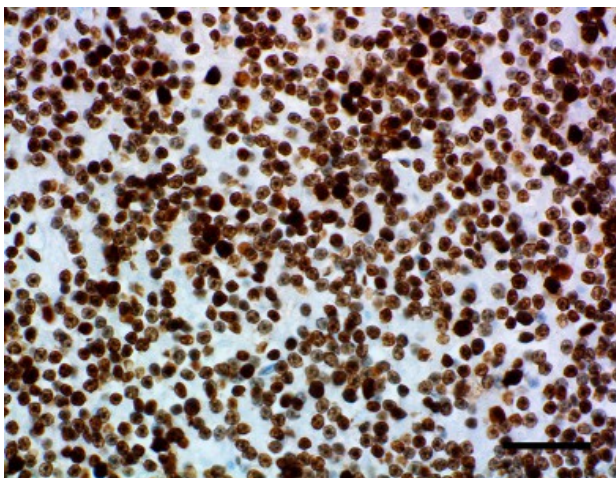
Related Protocols

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

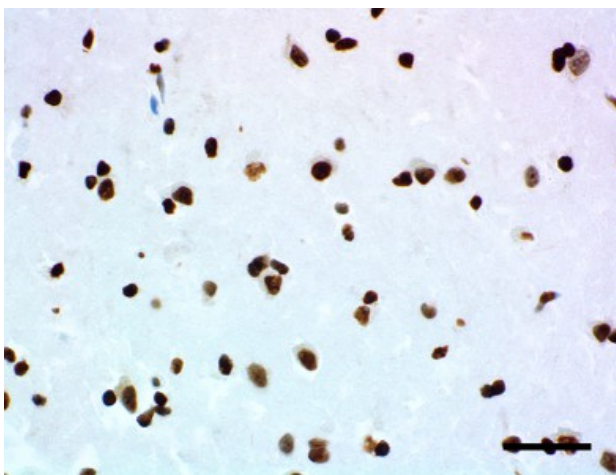
Other Formats

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

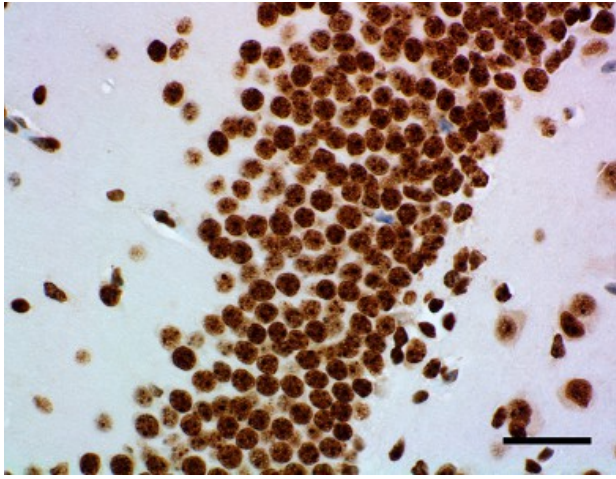
Product Data



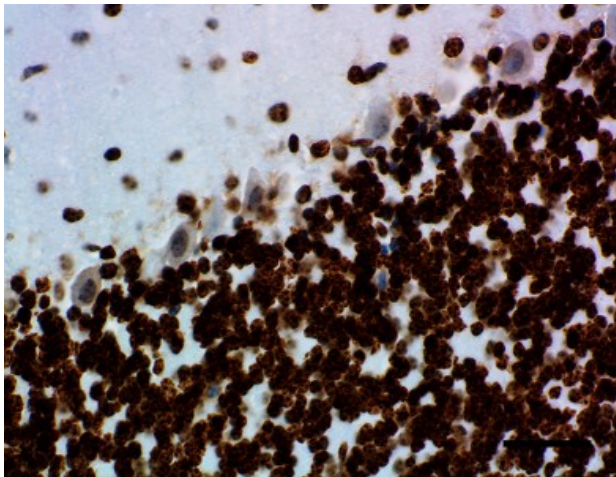
IHC staining of HRP anti-Histone H4 Trimethyl (Lys 20) antibody (clone 6F8-D9) on formalin-fixed paraffin-embedded human cerebellum tissue. Following antigen retrieval using Sodium Citrate H.I.E.R, the tissue was incubated with 5 µg/ml of the primary antibody overnight at 4°C. DAB was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 µm



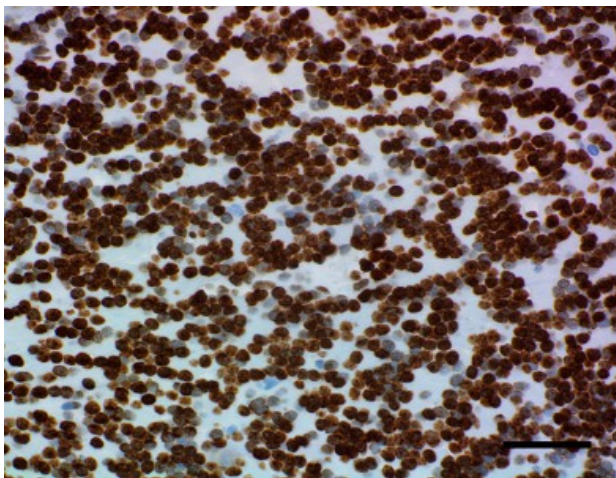
IHC staining of HRP anti-Histone H4 Trimethyl (Lys 20) antibody (clone 6F8-D9) on formalin-fixed paraffin-embedded human cortex tissue. Following antigen retrieval using Sodium Citrate H.I.E.R, the tissue was incubated with 5 µg/ml of the primary antibody overnight at 4°C. DAB was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 µm



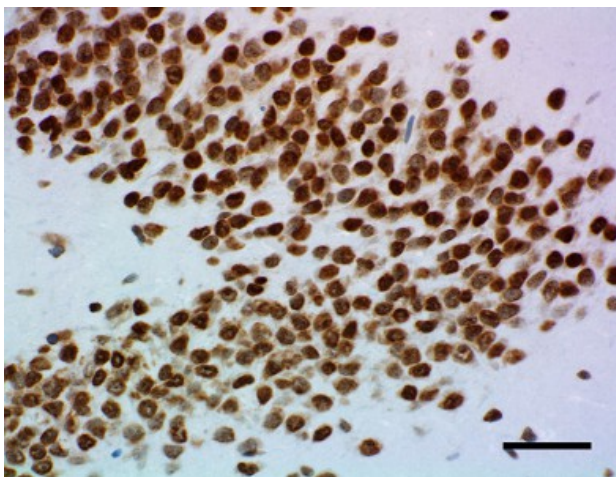
IHC staining of HRP anti-Histone H4 Trimethyl (Lys 20) antibody (clone 6F8-D9) on formalin-fixed paraffin-embedded mouse brain tissue. Following antigen retrieval using Sodium Citrate H.I.E.R, the tissue was incubated with 5 µg/ml of the primary antibody overnight at 4°C. DAB was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 µm



IHC staining of HRP anti-Histone H4 Trimethyl (Lys 20) antibody (clone 6F8-D9) on formalin-fixed paraffin-embedded mouse brain tissue. Following antigen retrieval using Sodium Citrate H.I.E.R, the tissue was incubated with 5 µg/ml of the primary antibody overnight at 4°C. DAB was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 µm



IHC staining of HRP 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 5 µg/ml of the primary antibody overnight at 4°C. DAB was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 µm



IHC staining of HRP 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 5 µg/ml of the primary antibody overnight at 4°C. DAB was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 µm

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587