

**Anti-Histone H4 [Dimethyl Lys20] (RABBIT) Antibody**  
**Histone H4 K20me2 Antibody**  
**Catalog # ASR5661****Specification****Anti-Histone H4 [Dimethyl Lys20] (RABBIT) Antibody - Product Information**

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, IHC, I, LCI
Application Note	Anti-Histone H4 [Dimethyl Lys20] antibody is tested for Western Blot, Dot Blot, Chromatin Immunoprecipitation, Immunofluorescence, and Immunocytochemistry. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~13 kDa corresponding to Histone H4 protein by Western Blotting in HeLa histone prep lysate or the appropriate cell lysate or extract. Epi-Plus™ antibody production in collaboration with Novus Biologicals.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	Histone H4 [Dimethyl Lys20] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic dimethylated peptide surrounding Lysine 20 of human Histone H4.
Stabilizer	30% Glycerol
Preservative	0.01% (w/v) Sodium Azide

**Anti-Histone H4 [Dimethyl Lys20] (RABBIT) Antibody - Additional Information****Gene ID** 121504;554313;8294;8359;8360;8361;8362;8363;8364;8365;8366;8367;8368;8370**Other Names**  
121504**Purity**

Anti-Histone H4 [Dimethyl Lys20] was affinity purified from monospecific antiserum by immunoaffinity chromatography. This antibody reacts with human Histone H4. A BLAST analysis was used to suggest cross-reactivity with Human, mouse, and C. elegans. Predicted to react with most mammal species. Cross-reactivity with Histone H4 from other sources has not been determined.

**Storage Condition**

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

**Anti-Histone H4 [Dimethyl Lys20] (RABBIT) Antibody - Protein Information**

**Name** H4C1

**Synonyms** H4/A, H4FA, HIST1H4A

**Function**

Core component of nucleosome. 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.

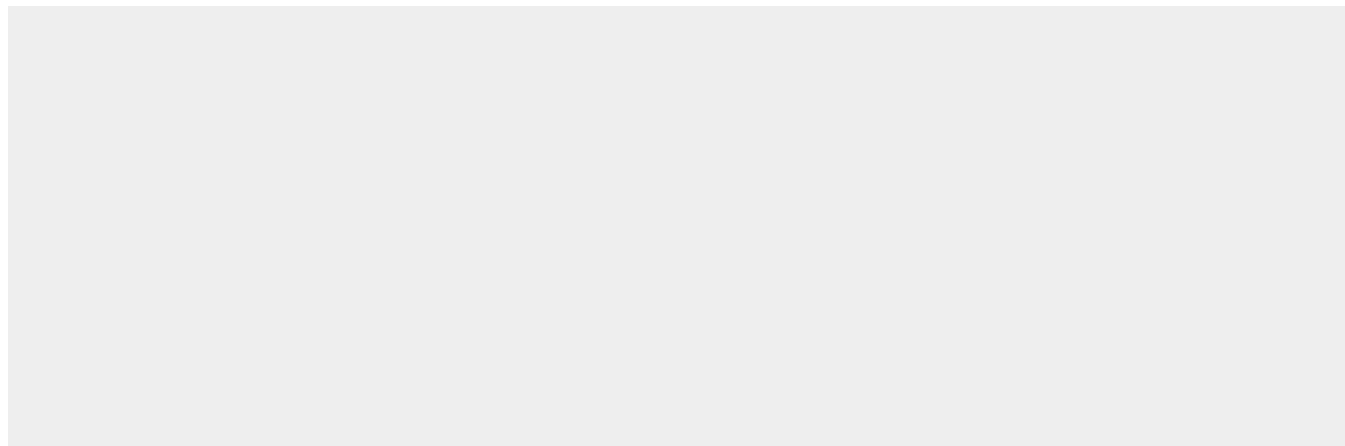
**Cellular Location**

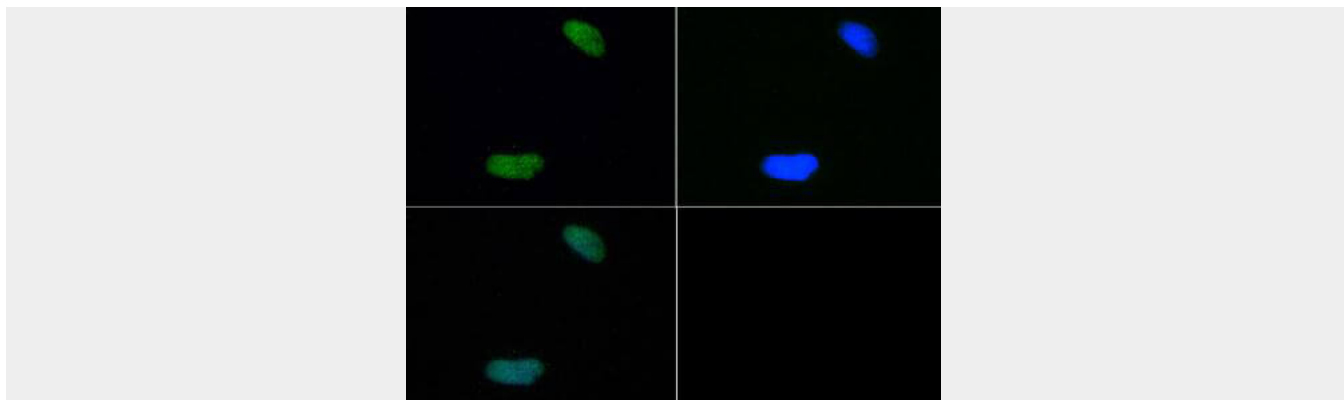
Nucleus {ECO:0000250|UniProtKB:P62806}. Chromosome. Note=Localized to the nucleus when acetylated in step 11 spermatids. {ECO:0000250|UniProtKB:P62806}

**Anti-Histone H4 [Dimethyl Lys20] (RABBIT) Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-Histone H4 [Dimethyl Lys20] (RABBIT) Antibody - Images**



Immunofluorescence of Rabbit Anti-Histone H4 [Dimethyl Lys20] Antibody. Tissue: HeLa cells. Fixation: 0.5% PFA. Antigen retrieval: Not required. Primary antibody: Histone H4 [Dimethyl Lys20] antibody at a 1:50 dilution for 1 h at RT. Secondary antibody: FITC secondary antibody at 1:10,000 for 45 min at RT. Localization: Histone H4 [Dimethyl Lys20] is nuclear and chromosomal. Staining: Histone H4 [Dimethyl Lys20] is expressed in green, nuclei are counterstained with DAPI (blue).

#### **Anti-Histone H4 [Dimethyl Lys20] (RABBIT) Antibody - Background**

When K20 is di-methylated on H4, the downstream effect is silencing of genes. This modification is also necessary and sufficient for 53BP1 binding, which is a prerequisite for DNA repair, a highly conserved mechanism. H4K20me2 is associated with hypoacetylation, and inactivation of certain genes. NSD1 and Suv420h1/2 trigger the dimethylation of K20, but only after SET8 catalyzes the mono-methylation of the same lysine, indicating a complex regulation of this modification that can so seriously affect replication and stability of genomic information. Anti-Histone H4 are ideal for researchers interested in Chromatin Modifiers, Chromatin Research, DNA Repair, DNA replication Transcription Translation and Splicing, Histones and Modified Histones, and Epigenetics research.