


Anti-Histone H4 antibody ab16483

★★★★★ [1 Abreviews](#) [14 References](#) [1 Image](#)

Overview

Product name	Anti-Histone H4 antibody
Description	Rabbit polyclonal to Histone H4
Host species	Rabbit
Specificity	We recommend ab16483 as a suitable alternative to ab10156 as it was made using the same immunogen.
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Cow, Human, Recombinant fragment Predicted to work with: Saccharomyces cerevisiae 
Immunogen	Recombinant full length protein corresponding to Saccharomyces cerevisiae Histone H4 aa 1 to the C-terminus. Database link: P02309
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS
	Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab16483 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★★ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 14 kDa (predicted molecular weight: 11 kDa).

Target

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.

Sequence similarities

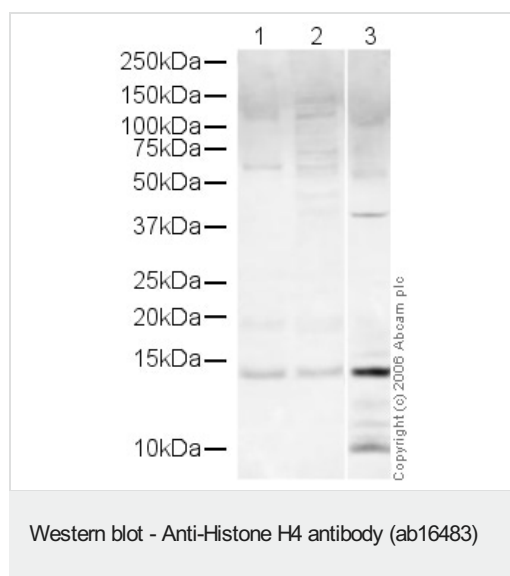
Belongs to the histone H4 family.

Post-translational modifications

Acetylation at Lys-6 (H4K5ac), Lys-9 (H4K8ac), Lys-13 (H4K12ac) and Lys-17 (H4K16ac) occurs in coding regions of the genome but not in heterochromatin.
 Citrullination at Arg-4 (H4R3ci) by PAD14 impairs methylation.
 Monomethylation and asymmetric dimethylation at Arg-4 (H4R3me1 and H4R3me2a, respectively) by PRMT1 favors acetylation at Lys-9 (H4K8ac) and Lys-13 (H4K12ac).
 Demethylation is performed by JMJD6. Symmetric dimethylation on Arg-4 (H4R3me2s) by the PRDM1/PRMT5 complex may play a crucial role in the germ-cell lineage.
 Monomethylated, dimethylated or trimethylated at Lys-21 (H4K20me1, H4K20me2, H4K20me3).
 Monomethylation is performed by SET8. Trimethylation is performed by SUV420H1 and SUV420H2 and induces gene silencing.
 Ubiquitinated by the CUL4-DDB-RBX1 complex in response to ultraviolet irradiation. This may weaken the interaction between histones and DNA and facilitate DNA accessibility to repair proteins. Monoubiquitinated at Lys-92 of histone H4 (H4K91ub1) in response to DNA damage. The exact role of H4K91ub1 in DNA damage response is still unclear but it may function as a licensing signal for additional histone H4 post-translational modifications such as H4 Lys-21 methylation (H4K20me).
 Sumoylated, which is associated with transcriptional repression.

Cellular localization Nucleus. Chromosome.

Images



All lanes : Anti-Histone H4 antibody (ab16483) at 1 µg/ml

Lane 1 : Calf Thymus Histone lysate at 0.5 µg

Lane 2 : HeLa Histone Lysate at 2.5 µg

Lane 3 : Recombinant Histone H4 at 1 µg

Secondary

All lanes : Alexa Fluor Goat polyclonal to Rabbit IgG at 1/10000 dilution

Predicted band size: 11 kDa

Observed band size: 14 kDa

ab16483 detects a band of approximately 14 kDa in Calf thymus histone prep, HeLa histone prep and recombinant Histone H4. This is slightly larger than the predicted molecular weight according to Swissprot (11 kDa), however we are confident that ab16483 is recognising Histone H4.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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