Datasheet for ABIN6971835

anti-Histone H3.1 antibody (AA 21-39)

2 Images

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Overview

Quantity:	100 µg
Target:	Histone H3.1 (HIST1H3B)
Binding Specificity:	AA 21-39
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Histone H3.1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Chromatin Immunoprecipitation (ChIP), Immunocytochemistry (ICC), ChIP DNA-Sequencing (ChIP-seq)

Product Details

Immunogen:	This antibody was raised against a peptide comprising amino acids 21-39 of human Histone H3.1. This region is 100% identical in human Histone H3.2.
Clone:	1D4F2
Isotype:	IgG2b
Characteristics:	Histone H3 is one of the core components of the nucleosome. The nucleosome is the smallest subunit of chromatin and consists of 147 base pairs of DNA wrapped around an octamer of core histone proteins (two each of Histone H2A, Histone H2B, Histone H3 and Histone H4). Histone H1 is a linker histone, present at the interface between the nucleosome core and DNA entry/exit points. Histone H1 is responsible for establishing higher-order chromatin structure. Chromatin is subject to a variety of chemical modifications, including post-translational

Product Details

	modifications of the histone proteins and the methylation of cytosine residues in the DNA. Reported histone modifications include acetylation, methylation, phosphorylation, ubiquitylation, glycosylation, ADP-ribosylation, carbonylation and SUMOylation, these modifications play a major role in regulating gene expression. There are three protein variants of Histone H3, Histone H3.1, 3.2 and 3.3. The incorporation of Histone H3.1 and H3.2 into nucleosomes is replication dependent, in contrast to Histone H3.3, which is independent of DNA synthesis and occurs throughout the cell cycle. Human Histone H3.1 and H3.2 are identical in amino acid sequences except at position 110 where H3.1 has a cysteine and H3.2 has a serine. Histone H3.1 / 3.2 antibody (mAb) (Clone 1D4F2) was raised in a Mouse host. It has been validated for use in Chromatin Immunoprecipitation, ChIP-Seq, Immunocytochemistry, Immunofluorescence and Western blot, it has been shown to react with Human samples, but it is predicted that it will react with a wide range of sample types.
Purification:	Protein A Chromatography

Target Details

Target:	Histone H3.1 (HIST1H3B)
Alternative Name:	Histone H3.1 / 3.2 (HIST1H3B Products)
Molecular Weight:	17 kDa
NCBI Accession:	NP_003522

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

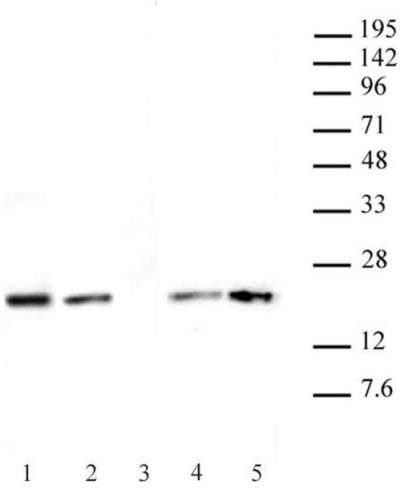
Handling

Buffer:	Purified IgG in PBS with 30 % glycerol and 0.035 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -

Handling

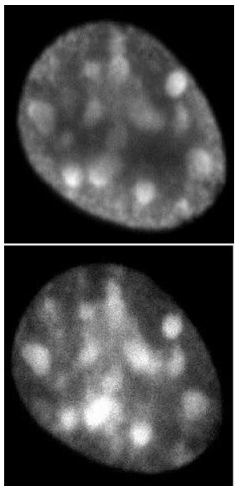
20°C for up to 2 years. Keep all reagents on ice when not in storage.

Images



Western Blotting

Image 1. Histone H3.1 / 3.2 antibody (mAb) (Clone 1D4F2) tested by Western blot. HeLa nuclear extract (20 µg) and recombinant human Histones (100 ng) were probed with Histone H3.1 / 3.2 antibody (mAb) at a 1 µg/mL dilution in lanes 1, 2, & 3. Histone H3 (mAb) is also shown at a 0.25 µg/mL dilution in lanes 4 & 5. Lane 1: Nuclear extract of untreated HeLa cells. Lane 2: 100 ng recombinant human Histone H3.1 protein. Lane 3: 100 ng recombinant human Histone H3.3 protein. Lane 4: 100 ng recombinant human Histone H3.1 protein. Lane 5: 100 ng recombinant human Histone H3.3 protein.



Immunofluorescence

Image 2. Histone H3.1 / 3.2 antibody (mAb) (Clone 1D4F2) tested by immunofluorescence. Top: HeLa cell stained with H3.1 / 3.2 antibody (mAb). Bottom: Hoechst.