Datasheet for ABIN6972029

anti-Histone 3 antibody (2meLys9)

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Overview

Quantity:	100 µL
Target:	Histone 3 (H3)
Binding Specificity:	2meLys9
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunofluorescence (IF), Chromatin Immunoprecipitation (ChIP), Dot Blot (DB), Immunocytochemistry (ICC)

Product Details

Immunogen:	This Histone H3 dimethyl Lys9 antibody was raised against a peptide including dimethyl-lysine 9 of histone H3.
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 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. The methylation of histones can

Product Details

	occur on two different residues: arginine or lysine. Histone methylation can be associated with transcriptional activation or repression, depending on the methylated residue. Lysine 9 of histone H3 can be mono-, di- or trimethylated by different histone methyltransferases (HMTs) such as SuvH39H1 or G9a. This methylated lysine can be demethylated by histone demethylases as JMJD1A, LSD1 or JMJD2C. Methylation of this residue is mainly associated with transcriptional repression. Histone H3K9me2 antibody (pAb) was raised in a Rabbit host. It has been validated for use in Chromatin Immunoprecipitation, Dot blot, Immunocytochemistry, Immunofluorescence and Western blot, it has been shown to react with Human and Mouse samples, but it is predicted that it will react with a wide range of sample types.
Purification:	Serum

Target Details

Target:	Histone 3 (H3)
Alternative Name:	Histone H3 (H3 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

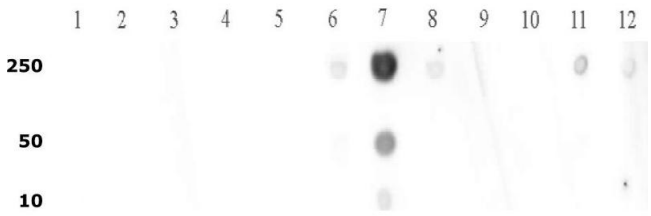
Handling

Buffer:	Rabbit serum containing 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 -20°C for up to 2 years. Keep all reagents on ice when not in storage.

Publications

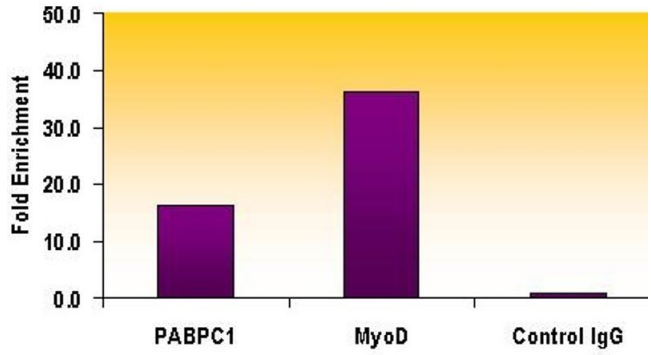
Product cited in: Yin, Yan, Yao, Zhang, Shan, Mao, Yang, Pan: "Secretion of annexin A3 from ovarian cancer cells and its association with platinum resistance in ovarian cancer patients." in: **Journal of cellular and molecular medicine**, Vol. 16, Issue 2, pp. 337-48, (2012) (PubMed).

Images



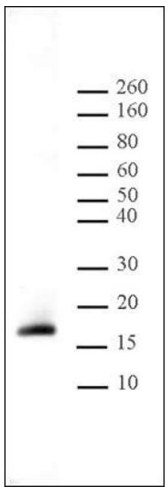
Dot Blot

Image 1. Histone H3K9me2 antibody tested by dot blot analysis. Decreasing amounts of peptides corresponding to regions around major sites of histone H3 methylation (lysine 4, lysine 9, lysine 27) were spotted onto PVDF and probed with antibody at 1:5,000. Top Panel peptides - Lane 1: Unmod. K4. Lane 2: H3K4me1. Lane 3: H3K4me1,2. Lane 4: H3K4me2. Lane 5: H3K4me3. Lane 6: Unmod. K9. Lane 7: H3K9me1. Lane 8: H3K9me2. Lane 9: H3K9me3. Bottom Panel peptides - Lane 1: Unmod. H3. Lane 2: K27me1. Lane 3: K27me2. Lane 4: K27me3. Lane 5: Unmod.K36. Lane 6: K36me1. Lane 7: K36me2. Lane 8: K36me3.



Chromatin Immunoprecipitation

Image 2. Histone H3 dimethyl Lys9 antibody tested by ChIP analysis. Chromatin IP performed using the ChIP-IT Express Kit and HeLa Chromatin (1.5 x 106 cell equivalents per ChIP) using 10 µL of Histone H3 dimethyl Lys9 antibody or the equivalent amount of rabbit IgG as a negative control. Real time, quantitative PCR (RT-qPCR) was performed on DNA purified from each of the ChIP reactions using a primer pair specific for the indicated gene. Data are presented as Fold Enrichment of the ChIP antibody signal versus the negative control IgG using the ddCT method.



Western Blotting

Image 3. Histone H3K9me2 antibody tested by Western blot. Detection of H3K9me2 by Western blot. The analysis was performed using 20 µg HeLa acid extract and Histone H3K9me2 antibody at a 1:1,000 dilution.

Please check the product details page for more images. Overall 5 images are available for ABIN6972029.