Datasheet for ABIN5706761

anti-Histone 3 antibody (H3K27me3, pSer28)

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Overview

Quantity:	50 µg
Target:	Histone 3 (H3)
Binding Specificity:	H3K27me3, pSer28
Reactivity:	Human, Mouse, C. elegans
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Histone 3 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Chromatin Immunoprecipitation (ChIP), Dot Blot (DB), Multiplex Assay (MA), Fluorescence Microscopy (FM)

Product Details

Purpose:	Histone H3 K27me3/phospho S28 Antibody
Immunogen:	Immunogen: Histone H3 [Trimethyl Lys27, p Ser28] affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with synthetic trimethylated/phosphorylated peptides surrounding Lysine 27 and Serine 28 of human Histone H3. Immunogen Type: Conjugated Peptide
Isotype:	IgG
Cross-Reactivity (Details):	This antibody reacts with human Histone H3.
Characteristics:	Synonyms: rabbit anti-Histone H3 trimethyl Lys18 pS28 antibody, H3.3B, H3pS28K18Me3, H3

Product Details

	histone, family 3A, H3.3AH3F3H3F3B, histone H3.3, MGC87783, MGC87782, H3 K27me3/pS28
Purification:	Anti-Histone H3 [Trimethyl Lys27, p Ser28] was affinity purified from monospecific antiserum by immunoaffinity chromatography.
Sterility:	Sterile filtered

Target Details

Target:	Histone 3 (H3)
Alternative Name:	Histone H3 (H3 Products)
Background:	Background: Chromatin is the arrangement of DNA and proteins in which chromosomes are formed. Correspondingly, chromatin is formed from nucleosomes, which are comprised of a set of four histone proteins (H2A, H2B, H3, H4) wrapped with DNA. Chromatin is a very dynamic structure in which numerous post-translational modifications work together to activate or repress the availability of DNA to be copied, transcribed, or repaired. These marks decide which DNA will be open and commonly active (euchromatin) or tightly wound to prevent access and activation (heterochromatin). Common histone modifications include methylation of lysine and arginine, acetylation of lysine, phosphorylation of threonine and serine, and sumoylation, biotinylation, and ubiquitylation of lysine. Specifically, trimethylation of K27 is associated with gene silencing, whereas pS28 is associated with mitosis and immediate early genes. Anti-Histone H3 are ideal for researchers interested in Chromatin Modifiers, Chromatin Research, Histones and Modified Histones, and Epigenetics research.
Gene ID:	126961
NCBI Accession:	NP_001005464
UniProt:	Q71DI3

Application Details

Application Notes:	Immunohistochemistry Dilution: 1:2000 Application Note: Anti-Histone H3 [Trimethyl Lys27, p Ser28] antibody is tested for Western Blot, Chromatin Immunoprecipitation, Dot Blot, and Immunocytochemistry/Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately ~15.4 kDa corresponding to Histone H3 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.

Application Details

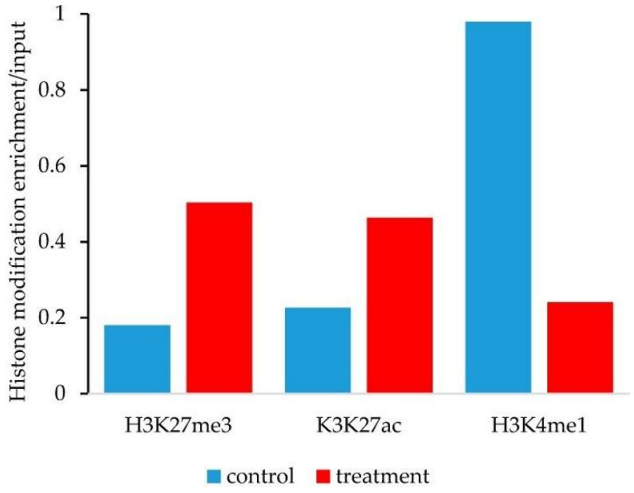
	ChIP Dilution: 2-5 µg/million cells Western Blot Dilution: 1 µg/mL IF Microscopy Dilution: 1:2000 Other: Dot Blot 1 µg/mL
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.66 mg/mL
Buffer:	Buffer: 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 Stabilizer: 30 % Glycerol Preservative: 0.05 % (w/v) 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:	4 °C,-20 °C
Storage Comment:	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.
Expiry Date:	12 months

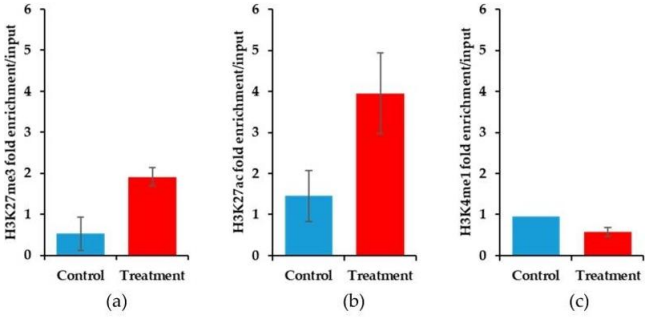
Publications

Product cited in:	Mika, Luelling, Pavek, Nartker, Heyneman, Jones, Barrott: "Epigenetic Changes at the Birc5 Promoter Induced by YM155 in Synovial Sarcoma." in: **Journal of clinical medicine**, Vol. 8, Issue 3, (2019) (PubMed).



Chromatin Immunoprecipitation

Image 1. Epigenetic histone marks differ between control and YM155 treated human synovial sarcoma cells, HS-SY-II, at the BIRC5 promoter. ChIP-qPCR for H3K27me3 (ABIN5706761) shows elevated levels at the BIRC5 promoter in the YM155 treated samples compared to controls. ChIP-qPCR for H3K27ac shows elevated levels at the BIRC5 promoter in the YM155 treated samples compared to controls. ChIP-qPCR for H3K4me1 shows a decrease at the BIRC5 promoter in the YM155 treated samples compared to controls. Source: PMC6463023



Chromatin Immunoprecipitation

Image 2. Epigenetic histone marks differ between control and YM155 treated mouse synovial sarcoma at the Birc5 promoter. (a) ChIP-qPCR for H3K27me3 (ABIN5706761) shows elevated levels at the Birc5 promoter in the YM155 treated samples (n = 5) compared to controls (n = 3), error bars are SEM (p = 0.045). (b) ChIP-qPCR for H3K27ac shows elevated levels at the Birc5 promoter in the YM155 treated samples (n = 5) compared to controls (n = 3), error bars are SEM (p = 0.14). (c) ChIP-qPCR for H3K4me1 shows equally low levels at the Birc5 promoter between the YM155 treated samples (n = 5) compared to controls (n = 2), error bars for treated samples are SEM (p = 0.13). Source: PMC6463023