MÉDIMABS
ANTIBODY SPECIALIST

Product datasheet

UBIQUITINATED H2B MOUSE MONOCLONAL ANTIBODY (NRO3)

SKU: MM-0029-P

100 µg

OVERVIEW

Clonality:
Monoclonal

Host:
Mouse

Reactivity:
Human, Mouse, Drosophila, Arabidopsis

Application:
WB, IHC, IF, ChIP

Target:
Ubiquitinated H2B

Target background:
It has been demonstrated that histone modifications are implicated in the regulation of transcription. Recent studies have revealed complex links between H2B ubiquitination and the control of transcription. Some studies suggest that H2B ubiquitination plays a role in transcriptional silencing whereas others suggest a role in transcriptional initiation and elongation. This antibody was raised against a branched peptide corresponding to the conjugation site of ubiquitin on human histone H2B.

Target alias:
Ubiquitinated Histone H2B, Ubiquitin Histone H2B, H2B, ub histone h2b, ub h2b

Immunogen:
Branched peptide corresponding to the conjugation site of ubiquitin on human histone H2B

Specificity:
The antibody recognizes the K120 ubiquitination of the human histone H2B with no detectable cross-reactivity with either non-ubiquitinated H2B or ubiquitinated histone H2A.

Clone ID:
NRO3

Isotype:
IgG2a

Preservative:
None

Format:
Lyophilized protein G purified in PBS pH7.4

Recommend starting dilution:
If reconstituted with deionized water in 50 µL: WB 2-3 µg/ml; ChIP 3-5 µg per sample; IHC: 1:200 – 1:500. Optimal dilution has to be determined by the user.

Limitations:
Research Use Only

References:

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6.-Rao SG - Invadolysin acts genetically via the SAGA complex to modulate chromosome structure.

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11.-Long L - The U4/U6 recycling factor SART3 has histone chaperone activity and associates with USP15 to regulate H2B deubiquitination.

12.-Wu B - Ring Finger Protein 14 is a new regulator of TCF/β-catenin-mediated transcription and colon cancer cell survival.

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15.-Sin HS - RNF8 regulates active epigenetic modifications and escape gene activation from inactive sex chromosomes in post-meiotic spermatids.

16.-Santoro SW and Dulac C - The activity-dependent histone variant H2BE modulates the life span of olfactory neurons.

17.-Himanen K - Histone H2B monoubiquitination is required to reach maximal transcript levels of circadian clock genes in Arabidopsis.

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20.-Urasaki Y - Coupling of glucose deprivation with impaired histone H2B monoubiquitination in tumors.

21.-Lee JS - Codependency of H2B monoubiquitination and nucleosome reassembly on Chd1.
22.-Jääskeläinen T - Histone H2B ubiquitin ligases RNF20 and RNF40 in androgen signaling and prostate cancer cell growth.
23.-Hahn MA - The tumor suppressor CDC73 interacts with the ring finger proteins RNF20 and RNF40 and is required for the maintenance of histone 2B monoubiquitina...
24.-Chipumuro E and Henriksen MA - The ubiquitin hydrolase USP22 contributes to 3'-end processing of JAK-STAT-inducible genes.
25.-Rytinki MM - Overexpression of SUMO perturbs the growth and development of Caenorhabditis elegans.
26.-Lang G - The tightly controlled deubiquitination activity of the human SAGA complex differentially modifies distinct gene regulatory elements.
27.-Vernimmen D - Polycomb eviction as a new distant enhancer function.
28.-Ma MK - Histone crosstalk directed by H2B ubiquitination is required for chromatin boundary integrity.
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30.-Shema E - Detection and characterization of ubiquitylated H2B in mammalian cells.
31.-Krichevsky A - Involvement of KDM1C histone demethylase-OTLD1 otubain-like histone deubiquitinase complexes in plant gene repression.
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33.-Roudier F - Integrative epigenomic mapping defines four main chromatin states in Arabidopsis.
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47.-Sarkari F - EBNA1-mediated recruitment of a histone H2B deubiquitylating complex to the Epstein-Barr virus latent origin of DNA replication.
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49.-Buszczak M - Drosophila stem cells share a common requirement for the histone H2B ubiquitin protease scrawny.
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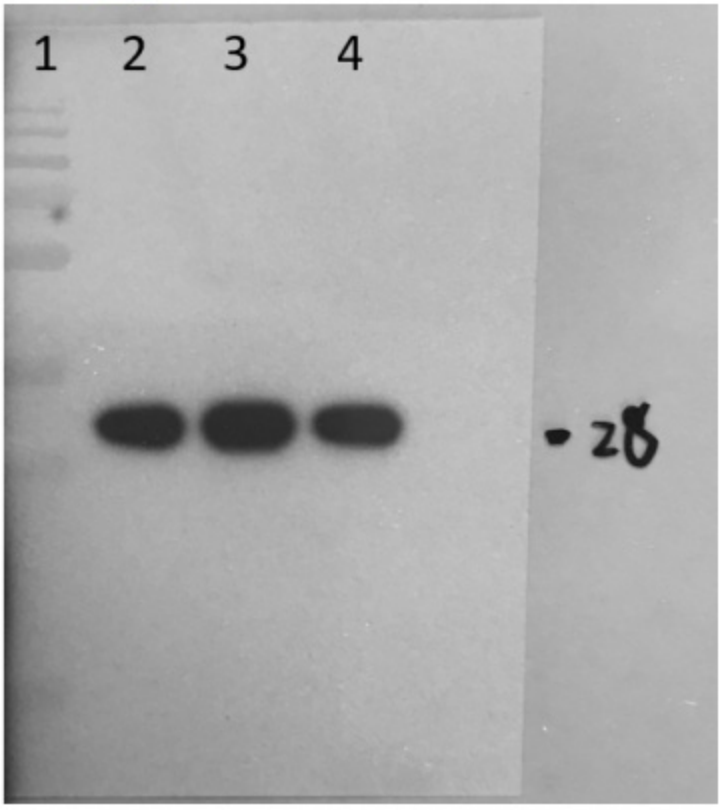
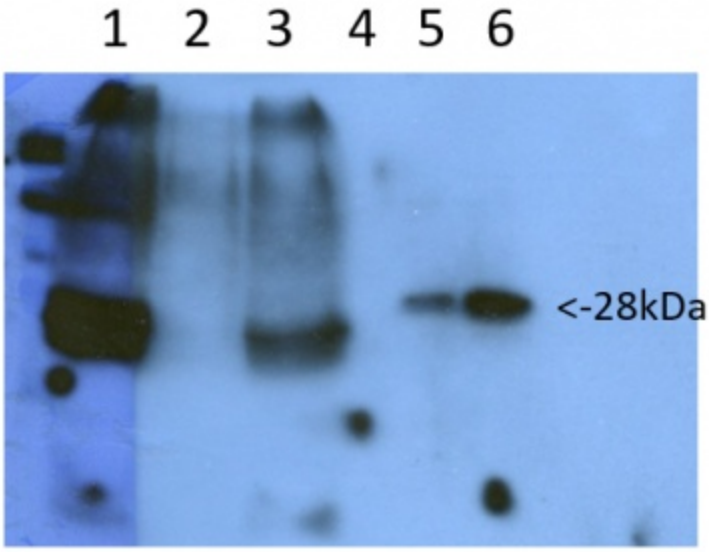
Storage:

Lyophilized antibodies can be kept at 4°C for up to 3 months and should be kept at -20°C for long-term storage (2 years). To avoid freeze-thaw cycles, reconstituted antibodies should be aliquoted before freezing for long-term (1 year) storage (-80°C) or kept at 4°C for short-term usage (2 months). For maximum recovery of product, centrifuge the original vial prior to removing the cap. Further dilutions can be made with the assay buffer. After the maximum long-term storage period (2 years lyophilized or 1 year reconstituted) antibodies should be tested in your assay with a standard sample to verify if you have noticed any decrease in their efficacy.

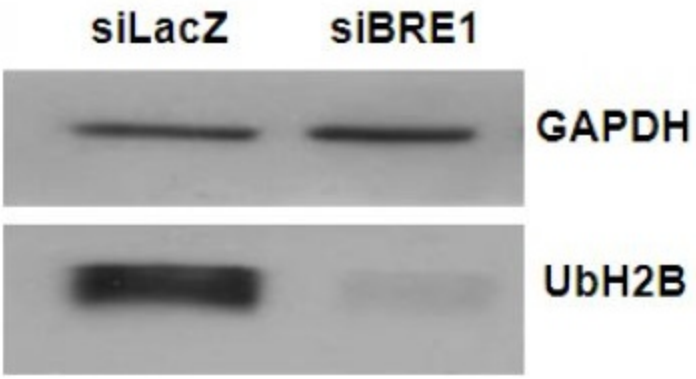
Image:



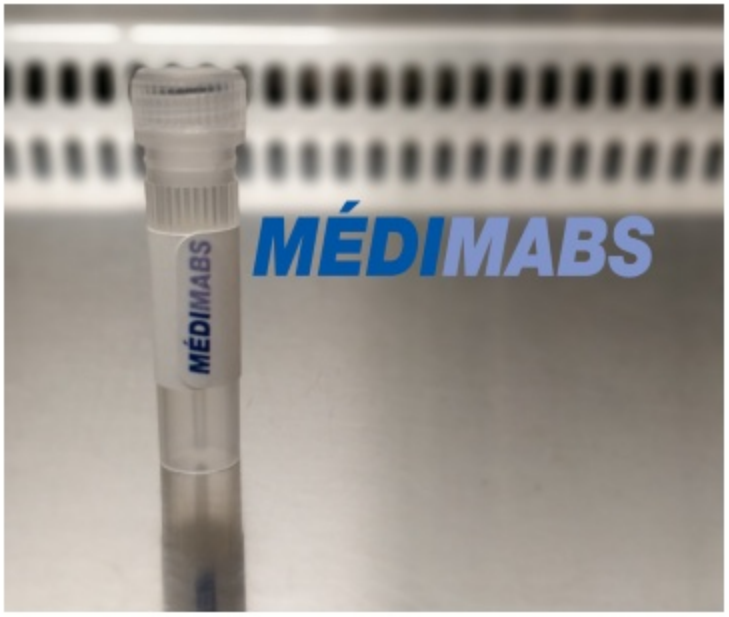
Western blot analysis of Samples from Arabidopsis thaliana 11 days after seed plating using MM-0029-P. (SDS gel 11%). 1: Ladder; 2: Wild type control Col0; 3: bmi1 mutant; 4: ring1 mutant. Same amount of proteins were loaded in each well.



Western blot analysis of Samples from Arabidopsis thaliana 11 days after seed plating using MM-0029-P. (SDS gel 11%). #1-2-3: extraction pellets (negative control) - protein of interest should be located in the supernatant if extraction is efficient (#1 corresponds to extration pellet of #4, #2 of #5 and #3 of #6); #4: Total protein extraction (negative control) - Almost totally ineficient method for histone extraction; #5: nuclear protein extraction (Positive control - amount 1X); #6: nuclear protein extraction (Positive control - amount 2X).



Western blot analysis of the ubiquitinated histone H2B antibody on whole cell extract from HeLa cells transfected with siRNA directed against the H2B E3 ubiquitin ligase (hBRE1) or LacZ. GAPDH antibody was used as loading control.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