

Product datasheet

Anti-MDM2 antibody - ChIP Grade ab226939

★★★★☆ 3 Abreviews 1 References 8 Images

Overview

Product name	Anti-MDM2 antibody - ChIP Grade
Description	Rabbit polyclonal to MDM2 - ChIP Grade
Host species	Rabbit
Tested applications	Suitable for: WB, IP, IHC-P, ChIP
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Cow, Cat, Dog, Pig, Rhesus monkey 
Immunogen	Recombinant fragment within Human MDM2 (internal sequence). The exact sequence is proprietary. Database link: Q00987
Positive control	WB: Neuro-2a, GL261, C8D30, NIH/3T3, RAW 264.7, BCL-1, C2C12, Jurkat, Raji and NCIH-929 whole cell extracts; MDM2 transfected HEK-293T whole cell extract; HepG2, starved for 16 hours, whole cell extract. IP: Jurkat whole cell extract. IHC-P: Human lung and lung cancer tissues. ChIP: PC-3 chromatin extract.

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 long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.00 Preservative: 0.025% Proclin Constituents: PBS, 20% Glycerol
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

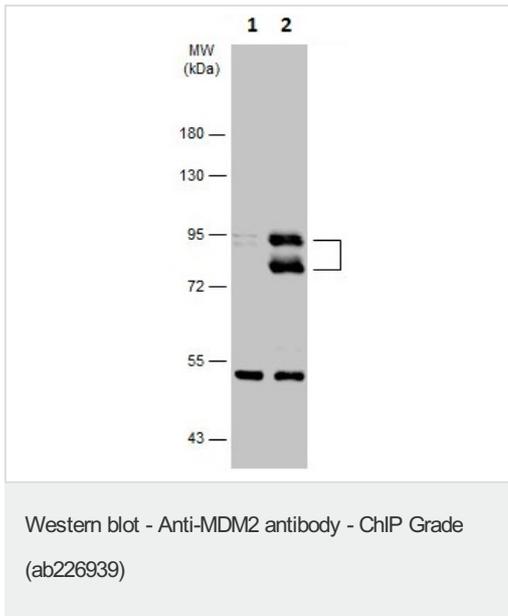
Our [Abpromise guarantee](#) covers the use of **ab226939** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB	★★★★☆	1/500 - 1/3000. Predicted molecular weight: 55 kDa.
IP		1/100 - 1/500.
IHC-P	★★★★☆	1/100 - 1/1000.
ChIP		Use at an assay dependent concentration.

Target

Function	E3 ubiquitin-protein ligase that mediates ubiquitination of p53/TP53, leading to its degradation by the proteasome. Inhibits p53/TP53- and p73/TP73-mediated cell cycle arrest and apoptosis by binding its transcriptional activation domain. Also acts as an ubiquitin ligase E3 toward itself and ARRB1. Permits the nuclear export of p53/TP53. Promotes proteasome-dependent ubiquitin-independent degradation of retinoblastoma RB1 protein. Inhibits DAXX-mediated apoptosis by inducing its ubiquitination and degradation. Component of the TRIM28/KAP1-MDM2-p53/TP53 complex involved in stabilizing p53/TP53. Also component of the TRIM28/KAP1-ERBB4-MDM2 complex which links growth factor and DNA damage response pathways.
Tissue specificity	Ubiquitous. Isoform Mdm2-A, isoform Mdm2-B, isoform Mdm2-C, isoform Mdm2-D, isoform Mdm2-E, isoform Mdm2-F and isoform Mdm2-G are observed in a range of cancers but absent in normal tissues.
Involvement in disease	Note=Seems to be amplified in certain tumors (including soft tissue sarcomas, osteosarcomas and gliomas). A higher frequency of splice variants lacking p53 binding domain sequences was found in late-stage and high-grade ovarian and bladder carcinomas. Four of the splice variants show loss of p53 binding.
Sequence similarities	Belongs to the MDM2/MDM4 family. Contains 1 RanBP2-type zinc finger. Contains 1 RING-type zinc finger. Contains 1 SWIB domain.
Domain	Region I is sufficient for binding p53 and inhibiting its G1 arrest and apoptosis functions. It also binds p73 and E2F1. Region II contains most of a central acidic region required for interaction with ribosomal protein L5 and a putative C4-type zinc finger. The RING finger domain which coordinates two molecules of zinc interacts specifically with RNA whether or not zinc is present and mediates the heterooligomerization with MDM4. It is also essential for its ubiquitin ligase E3 activity toward p53 and itself.
Post-translational modifications	Phosphorylated in response to ionizing radiation in an ATM-dependent manner. Auto-ubiquitinated; which leads to proteasomal degradation. Deubiquitinated by USP2 leads to its accumulation and increases deubiquitination and degradation of p53/TP53. Deubiquitinated by USP7; leading to stabilize it.
Cellular localization	Nucleus > nucleoplasm. Cytoplasm. Nucleus > nucleolus. Expressed predominantly in the nucleoplasm. Interaction with ARF(P14) results in the localization of both proteins to the nucleolus. The nucleolar localization signals in both ARF(P14) and MDM2 may be necessary to allow efficient nucleolar localization of both proteins. Colocalizes with RASSF1 isoform A in the nucleus.



All lanes : Anti-MDM2 antibody - ChIP Grade (ab226939) at 1/2000 dilution

Lane 1 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell extract

Lane 2 : MDM2 transfected HEK-293T whole cell extract

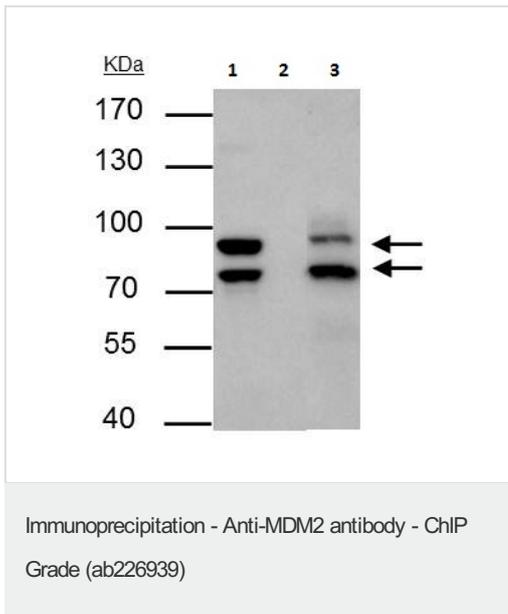
Lysates/proteins at 30 µg per lane.

Secondary

All lanes : HRP-conjugated anti-rabbit IgG

Predicted band size: 55 kDa

7.5% SDS-PAGE gel.



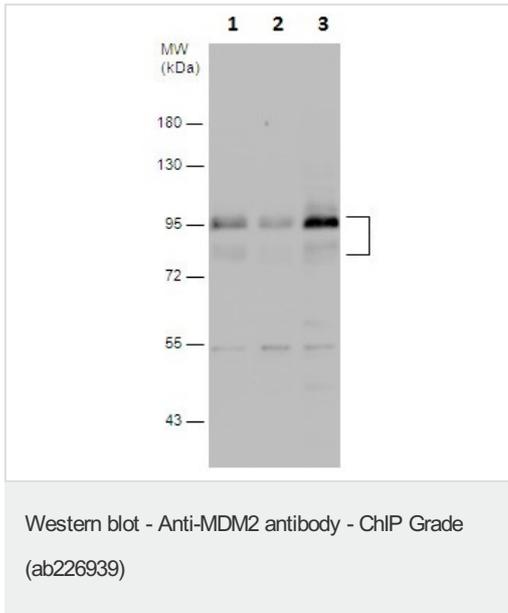
MDM2 was immunoprecipitated from Jurkat (human T cell leukemia cell line from peripheral blood) whole cell extract with 4 µg ab226939. Western blot was performed from the immunoprecipitate using ab226939 at 1/500 dilution.

Lane 1: Jurkat whole cell extract 30 µg (Input).

Lane 2: Control IP in Jurkat whole cell extract with 4 µg of preimmune Rabbit IgG.

Lane 3: ab226939 IP in Jurkat whole cell extract.

7.5 % SDS-PAGE gel.



All lanes : Anti-MDM2 antibody - ChIP Grade (ab226939) at 1/1000 dilution

Lane 1 : Jurkat (human T cell leukemia cell line from peripheral blood) whole cell extract

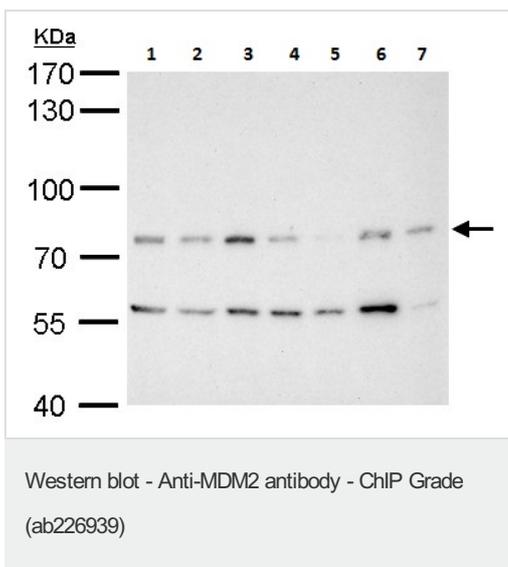
Lane 2 : Raji (human Burkitt's lymphoma cell line) whole cell extract

Lane 3 : NHI-H929 whole cell extract

Lysates/proteins at 30 µg per lane.

Predicted band size: 55 kDa

7.5% SDS-PAGE gel.



All lanes : Anti-MDM2 antibody - ChIP Grade (ab226939) at 1/1000 dilution

Lane 1 : Neuro-2a (mouse neuroblastoma cell line) whole cell extract

Lane 2 : GL261 whole cell extract

Lane 3 : C8D30 whole cell extract

Lane 4 : NIH/3T3 (mouse embryo fibroblast cell line) whole cell extract

Lane 5 : BCL-1 whole cell extract

Lane 6 : RAW 264.7 (mouse macrophage cell line transformed with Abelson murine leukemia virus) whole cell extract

Lane 7 : C2C12 (mouse myoblast cell line) whole cell extract

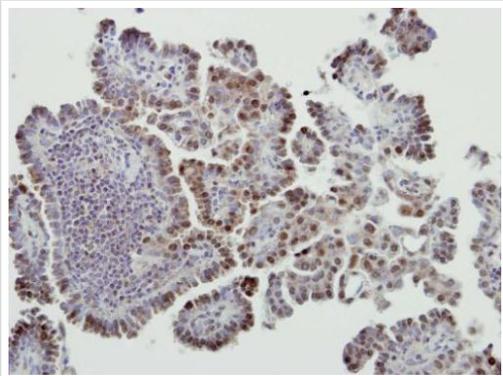
Lysates/proteins at 30 µg per lane.

Secondary

All lanes : HRP-conjugated anti-rabbit IgG

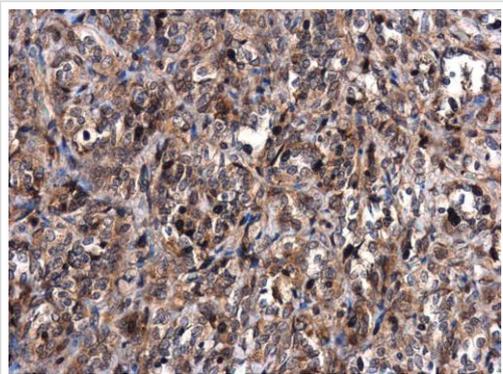
Predicted band size: 55 kDa

7.5% SDS-PAGE gel.



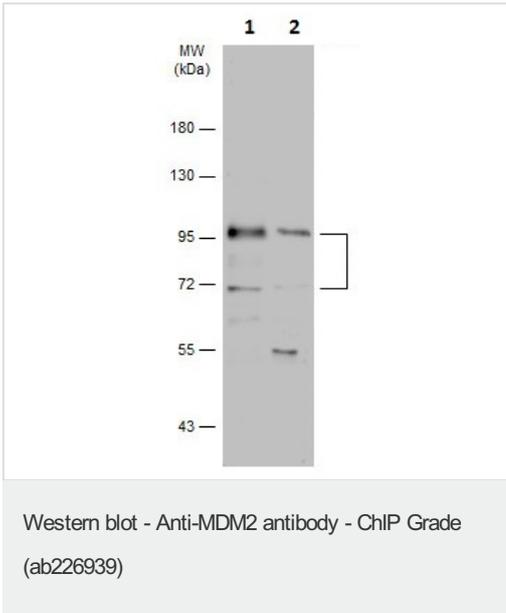
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MDM2 antibody - ChIP Grade (ab226939)

Paraffin-embedded human lung cancer tissue stained for MDM2 with ab226939 at 1/500 dilution in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-MDM2 antibody - ChIP Grade (ab226939)

Paraffin-embedded human lung tissue stained for MDM2 with ab226939 at 1/500 dilution in immunohistochemical analysis.



All lanes : Anti-MDM2 antibody - ChIP Grade (ab226939) at 1/3000 dilution

Lane 1 : HepG2 (human liver hepatocellular carcinoma cell line), starved for 16 hours, whole cell extract

Lane 2 : HepG2, starved for 16 hours and treated with 1 uM staurosporine for 24 hours, whole cell extract

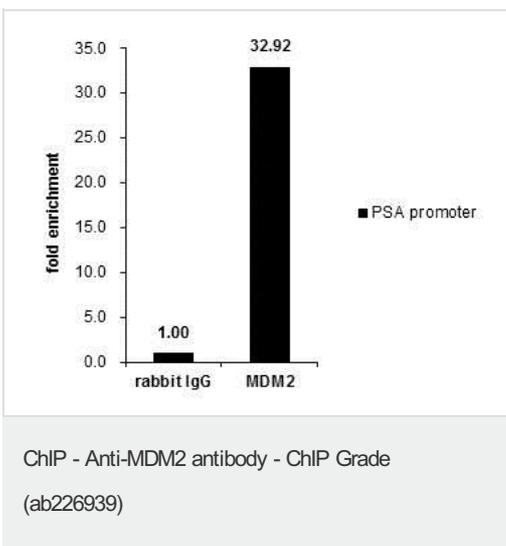
Lysates/proteins at 30 µg per lane.

Secondary

All lanes : HRP-conjugated anti-rabbit IgG

Predicted band size: 55 kDa

7.5% SDS-PAGE gel.



Cross-linked ChIP was performed with PC-3 (human prostate adenocarcinoma cell line) chromatin extract and 5 µg of either control rabbit IgG or ab226939. The precipitated DNA was detected by PCR with primer set targeting to PSA promoter.

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