abcam

Product datasheet

Anti-MDM2 antibody [EPR22256-98] ab259265

リコンビナント RabMAb

★★★★★ 5 Abreviews 6 References 画像数 5

製品の概要

製品名	Anti-MDM2 antibody [EPR22256-98]
製品の詳細	Rabbit monoclonal [EPR22256-98] to MDM2
由来種	Rabbit
アプリケーション	**適用あり:** ICC/IF, IP, WB **適用なし:** Flow Cyt or IHC-P
種交差性	**交差種:** Mouse, Rat, Human
免疫原	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: RAW 264.7 treated with 10uM Nutlin-3a for 24 hours whole, 2.4G2 treated with 10uM Nutlin-3a for 24 hours whole lysates, HepG2 treated with 10uM Nutlin-3a for 24 hours whole cell lysate. ICC/IF: HepG2 cells treated with 10uM Nutlin-3a for 24 hours. IP: HepG2 treated with 10uM Nutlin-3a for 24 hours whole cell lysate.
特記事項	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

製品の特性

製品の状態	Liquid
保存方法	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.
バッファー	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
精製度	Protein A purified
ポリ/モノ	モノクローナル

クローン名	EPR22256-98
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab259265の使用に適用されます

アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC/IF		1/100.
IP		1/30.
WB	★★★★★ (5)	1/1000. Detects a band of approximately 60, 90 kDa (predicted molecular weight: 55 kDa).

追加情報 Is unsuitable for Flow Cyt or IHC-P.

ターゲット情報

機能 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.

組織特異性 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.

関連疾患 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.

配列類似性 Belongs to the MDM2/MDM4 family.
Contains 1 RanBP2-type zinc finger.
Contains 1 RING-type zinc finger.
Contains 1 SWIB domain.

ドメイン 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.

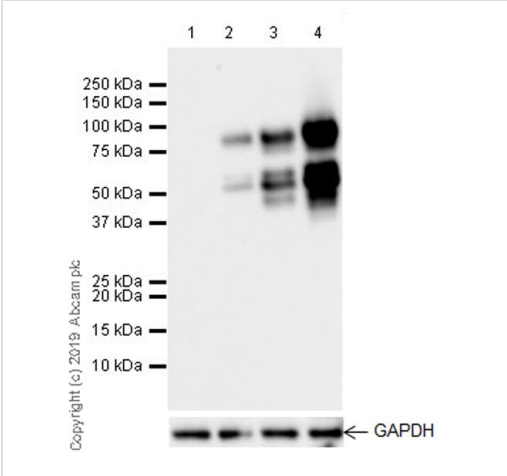
翻訳後修飾 Phosphorylated in response to ionizing radiation in an ATM-dependent manner.
Auto-ubiquitinated; which leads to proteasomal degradation. Deubiquitinated by USP2 leads to

its accumulation and increases deubiquitinilation and degradation of p53/TP53. Deubiquitinated by USP7; leading to stabilize it.

細胞内局在

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.

画像



Western blot - Anti-MDM2 antibody [EPR22256-98] (ab259265)

All lanes : Anti-MDM2 antibody [EPR22256-98] (ab259265) at 1/1000 dilution

Lane 1 : Untreated RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage), whole cell lysate
Lane 2 : RAW 264.7 treated with 10uM Nutlin-3a for 24 hours, whole cell lysate
Lane 3 : Untreated 2.4G2 (rat B cell lymphoma B lymphocyte), whole cell lysate
Lane 4 : 2.4G2 treated with 10uM Nutlin-3a for 24 hours, whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

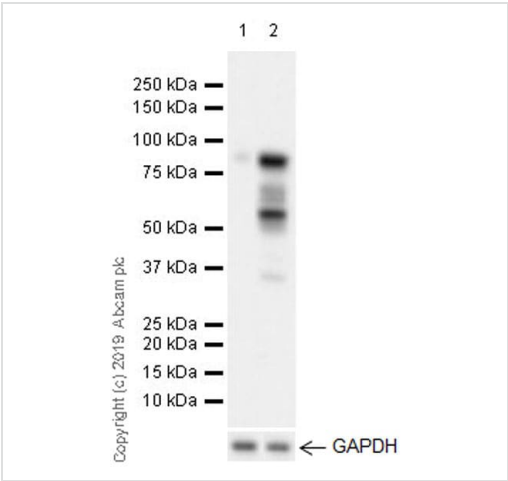
Predicted band size: 55 kDa
Observed band size: 60,90 kDa

Blocking and Dilution Buffer and concentration: 5% NFDM/TBST.

MDM2 can be cleaved into a 60-kDa fragment after Nutlin 3a treatment as Nutlin 3a disrupts p53-MDM2 interaction and induces p53- dependent apoptosis and autophagy.

The molecular weight observed is consistent with what has been described in the literature (PMID:19638413, 10329737).

Exposure time: 15 seconds.



Western blot - Anti-MDM2 antibody [EPR22256-98] (ab259265)

All lanes : Anti-MDM2 antibody [EPR22256-98] (ab259265) at 1/1000 dilution

Lane 1 : Untreated HepG2 (human hepatocellular carcinoma epithelial cell), whole cell lysate
Lane 2 : HepG2 treated with 10uM Nutlin-3a for 24 hours, whole cell lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

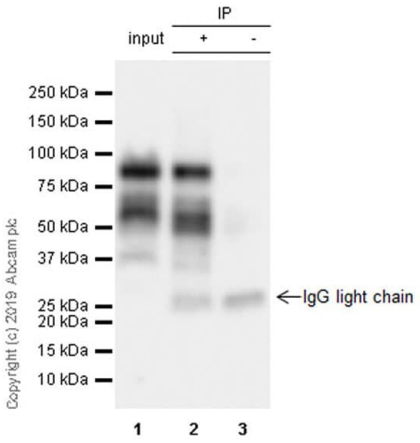
Predicted band size: 55 kDa
Observed band size: 60,90 kDa

Blocking and Dilution Buffer and concentration: 5% NFDM/TBST.

MDM2 can be cleaved into a 60-kDa fragment after Nutlin 3a treatment as Nutlin 3a disrupts p53-MDM2 interaction and induces p53- dependent apoptosis and autophagy.

The molecular weight observed is consistent with what has been described in the literature (PMID:19638413, 10329737).

Exposure time: 10 seconds.



Immunoprecipitation - Anti-MDM2 antibody [EPR22256-98] (ab259265)

MDM2 was immunoprecipitated from 0.35 mg HepG2 (human hepatocellular carcinoma epithelial cell) treated with 10uM Nutlin-3a for 24 hours whole cell lysate 10ug with ab259265 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab259265 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used at 1/5000 dilution.

Lane 1: HepG2 (human hepatocellular carcinoma epithelial cell) treated with 10uM Nutlin-3a for 24 hours whole cell lysate 10ug

Lane 2: ab259265 IP in HepG2 treated with 10uM Nutlin-3a for 24 hours whole cell lysate

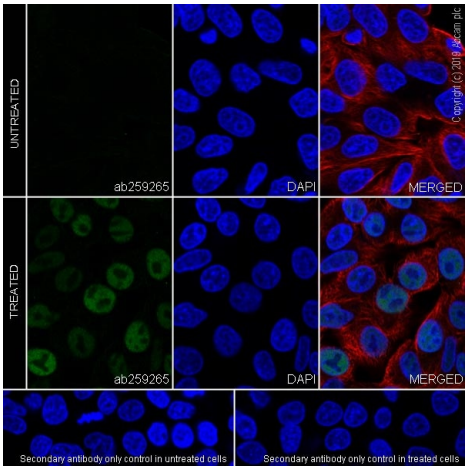
Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab259265 in HepG2 treated with 10uM Nutlin-3a for 24 hours whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 3 seconds.

MDM2 can be cleaved into a 60-kDa fragment after Nutlin 3a treatment as Nutlin 3a disrupts p53–MDM2 interaction and induces p53- dependent apoptosis and autophagy.

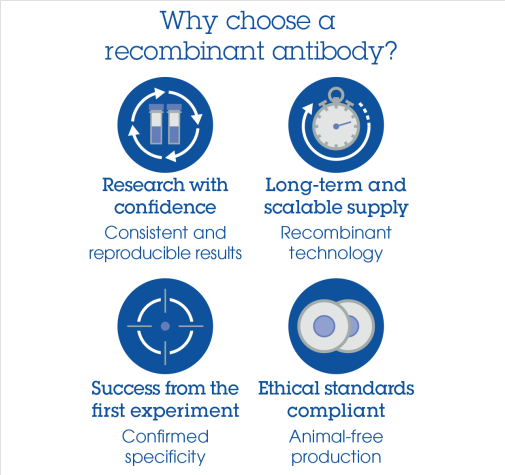
The molecular weight observed is consistent with what has been described in the literature (PMID:19638413, 10329737).



Immunocytochemistry/ Immunofluorescence - Anti-MDM2 antibody [EPR22256-98] (ab259265)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HepG2 (human hepatocellular carcinoma epithelial cell) cells labelling MDM2 with ab259265 at 1/100 (5 ug/ml) dilution, followed by **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary antibody at 1/1000 (2 ug/ml) dilution (Green). Confocal image showing nuclear staining in HepG2 cells treated with Nutlin-3a (10 uM) for 24 hours is observed. **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab259265 anti- MDM2 **ab150077** AlexaFluor®488 Goat anti-Rabbit secondary at 1/1000 (2 ug/ml) dilution.



Anti-MDM2 antibody [EPR22256-98] (ab259265)

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