

# Product datasheet

# Anti-MDM2 (phospho S185) antibody ab1094

# 1 Image

Overview

Product name Anti-MDM2 (phospho S185) antibody

**Description** Rabbit polyclonal to MDM2 (phospho S185)

Specific for phosphorylated MDM 2, giving a band in western blotting at approx 102 kD.

Tested applications Suitable for: WB

**Species reactivity** Reacts with: Mouse, Rat, Human

**Immunogen** Synthetic peptide:

HRKRRSLSFDPSLGLCELRE

, corresponding to amino acids 177-198 of Mouse MDM2

Run BLAST with
Run BLAST with

**Properties** 

Form Liquid

**Storage instructions** Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw

cycles.

Storage buffer 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, 0.01% Sodium Azide, pH 7.2

Purity Immunogen affinity purified

**Clonality** Polyclonal

**Isotype** IgG

## **Applications**

Our Abpromise guarantee covers the use of ab1094 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

**Application notes** WB: 1/1000 - 1/5000. Predicted molecular weight: 55 kDa.

This product has been assayed by ELISA against 0.1µg of the immunizing peptide.

Not yet tested in other applications.

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#### **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

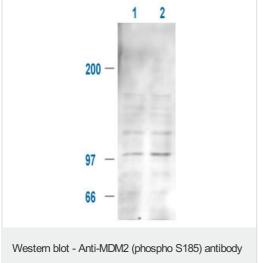
Phosphorylated in response to ionizing radiation in an ATM-dependent manner. Auto-ubiquitinated; which leads to proteasomal degradation. Deubiquitinated by USP2 leads to its accumulation and increases deubiquitinilation and degradation of p53/TP53. Deubiquitinated

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.

## Anti-MDM2 (phospho S185) antibody images



(ab1094)

This image is courtesy of Angela Carter, Experimental Therapeutics, Ontario Cancer Inst, Toronto, Canada

Predicted band size: 55 kDa

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Rabbit polyclonal to phospho MDM 2 (Ser 185) at 1/1000 on 293T cell extract shows a band at 102 kD.

Cells were serum starved for 24 hours:

Lane 1: control

Lane 2: treated with IGF-1 (100 ng/ml) for 20

min

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