

Anti-MDM2 (RABBIT) Antibody
Mdm2 Antibody
Catalog # ASR5351**Specification**

Anti-MDM2 (RABBIT) Antibody - Product Information

| | |
|------------------|--|
| Host | Rabbit |
| Conjugate | Unconjugated |
| Target Species | Mouse |
| Reactivity | Mouse |
| Clonality | Polyclonal |
| Application | WB, E, IP, I, LCI |
| Application Note | This affinity purified antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 90 kDa in size corresponding to MDM2 protein by western blotting in the appropriate cell lysate or extract. See Saucedo, et al (1999) for a discussion on expected molecular weights. |
| Physical State | Liquid (sterile filtered) |
| Buffer | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| Immunogen | This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near aa 175-200 of mouse MDM2. |
| Preservative | 0.01% (w/v) Sodium Azide |

Anti-MDM2 (RABBIT) Antibody - Additional Information**Gene ID** 17246**Other Names**
17246**Purity**

This affinity-purified antibody is directed against mouse MDM2 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. Reactivity occurs against Mouse MDM2 protein. A BLAST analysis was used to suggest minimal cross reactivity with MDM2 homologues from other sources.

Storage Condition

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.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-MDM2 (RABBIT) Antibody - Protein Information

Name Mdm2

Function

E3 ubiquitin-protein ligase that mediates ubiquitination of p53/TP53, leading to its degradation by the proteasome (PubMed:15195100, PubMed:21804542). Inhibits p53/TP53- and p73/TP73- mediated cell cycle arrest and apoptosis by binding its transcriptional activation domain (By similarity). Also acts as a ubiquitin ligase E3 toward itself, ARRB1 and ARRB2 (PubMed:11588219). Permits the nuclear export of p53/TP53 (By similarity). Promotes proteasome-dependent ubiquitin-independent degradation of retinoblastoma RB1 protein (By similarity). Inhibits DAXX-mediated apoptosis by inducing its ubiquitination and degradation (By similarity). Component of the TRIM28/KAP1-MDM2-p53/TP53 complex involved in stabilizing p53/TP53 (By similarity). Also a component of the TRIM28/KAP1-ERBB4-MDM2 complex which links growth factor and DNA damage response pathways (By similarity). Mediates ubiquitination and subsequent proteasome degradation of DYRK2 in nucleus (By similarity). Ubiquitinates IGF1R and SNAI1 and promotes them to proteasomal degradation (By similarity). Ubiquitinates DCX, leading to DCX degradation and reduction of the dendritic spine density of olfactory bulb granule cells (PubMed:25088421). Ubiquitinates DLG4, leading to proteasomal degradation of DLG4 which is required for AMPA receptor endocytosis (PubMed:14642282). Negatively regulates NDUF51, leading to decreased mitochondrial respiration, marked oxidative stress, and commitment to the mitochondrial pathway of apoptosis (PubMed:30879903). Binds NDUF51 leading to its cytosolic retention rather than mitochondrial localization resulting in decreased supercomplex assembly (interactions between complex I and complex III), decreased complex I activity, ROS production, and apoptosis (PubMed:30879903).

Cellular Location

Nucleus, nucleoplasm. Cytoplasm. Nucleus, nucleolus. Nucleus {ECO:0000250|UniProtKB:Q00987} Note=Colocalizes with RASSF1 isoform A in the nucleus (By similarity) 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 {ECO:0000250|UniProtKB:Q00987}

Tissue Location

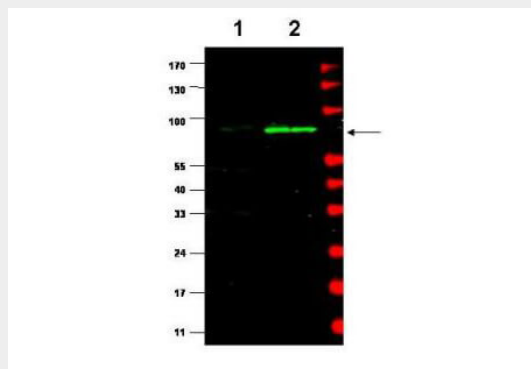
Ubiquitously expressed at low-level throughout embryo development and in adult tissues. MDM2-p90 is much more abundant than MDM2-p76 in testis, brain, heart, and kidney, but in the thymus, spleen, and intestine, the levels of the MDM2 proteins are roughly equivalent.

Anti-MDM2 (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-MDM2 (RABBIT) Antibody - Images



Western blot using Rockland's affinity purified Anti-MDM2 (Rabbit) is shown to detect a band (arrow) corresponding to mouse MDM2 protein. Lane 1: human kidney HEK293 cells (p/n W09-000-365). Lane 2: mouse MEF cells (p/n W10-001-371). Approximately 35 μ g of lysate was separated by 4-20% Tris Glycine SDS-PAGE. After blocking the membrane with 5% normal goat serum, 0.5% BLOTTO (p/n B501-0500) in PBS, the membrane was probed for overnight at 4° with the primary antibody diluted to 1:500 in 1% normal goat serum, 0.1% BLOTTO in PBS. The membrane was washed and reacted with a 1:10,000 dilution of IRDye800 conjugated Gt-a-Rabbit IgG [H&L] (p/n 611-132-122) for 45 min at room temperature (800 nm channel, green). Molecular weight estimation was made by comparison to prestained MW markers indicated at the right (700 nm channel, red). IRDye800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

Anti-MDM2 (RABBIT) Antibody - Background

MDM2 is a nuclear phosphoprotein with an apparent molecular mass of 90 kD that forms a complex with the p53 tumor suppressor protein. Human MDM2 was identified as a homologous product of the 'murine double minute 2' gene (*mdm2*). The MDM2 gene enhances the tumorigenic potential of cells when it is overexpressed and encodes a putative transcription factor. Forming a tight complex with the p53 gene, the MDM2 oncogene can inhibit p53-mediated transactivation. MDM2 binds to p53 and amplification of MDM2 in sarcomas leads to escape from p53-regulated growth control. This mechanism of tumorigenesis parallels that for virus-induced tumors in which viral oncogene products bind to and functionally inactivate p53.