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Phospho-MDM2(S395) Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3579a

Specification

Phospho-MDM2(S395) Antibody - Product Information

Application	**DB,E**
Primary Accession	Q00987
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**

Phospho-MDM2(S395) Antibody - Additional Information

Gene ID 4193

Other Names
E3 ubiquitin-protein ligase Mdm2, 632-, Double minute 2 protein, Hdm2, Oncoprotein Mdm2, p53-binding protein Mdm2, MDM2

Target/Specificity
This MDM2 Antibody is generated from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding S395 of human MDM2.

Dilution
DB~~1:500

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Phospho-MDM2(S395) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-MDM2(S395) Antibody - Protein Information

Name MDM2

Function E3 ubiquitin-protein ligase that mediates ubiquitination of p53/TP53, leading to its degradation by the proteasome (PubMed:29681526). Inhibits p53/TP53- and p73/TP73-mediated cell cycle arrest and apoptosis by binding its transcriptional activation domain. Also acts as a 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 a component of the TRIM28/KAP1-ERBB4-MDM2 complex which links growth factor and DNA damage response pathways. Mediates ubiquitination and subsequent proteasome degradation of DYRK2 in nucleus. Ubiquitinates IGF1R and SNAI1 and promotes them to proteasomal degradation (PubMed:12821780, PubMed:15053880, PubMed:15195100, PubMed:15632057, PubMed:16337594, PubMed:17290220, PubMed:19098711, PubMed:19219073, PubMed:19837670, PubMed:19965871, PubMed:20173098, PubMed:20385133, PubMed:20858735, PubMed:22128911). Ubiquitinates DCX, leading to DCX degradation and reduction of the dendritic spine density of olfactory bulb granule cells (By similarity). Ubiquitinates DLG4, leading to proteasomal degradation of DLG4 which is required for AMPA receptor endocytosis (By similarity). Negatively regulates NDUFS1, leading to decreased mitochondrial respiration, marked oxidative stress, and commitment to the mitochondrial pathway of apoptosis (PubMed:30879903). Binds NDUFS1 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. Note=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

Tissue Location
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

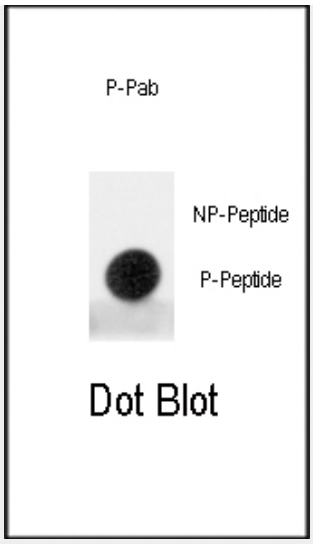
Phospho-MDM2(S395) Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-MDM2(S395) Antibody - Images

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Dot blot analysis of anti-Phospho-MDM2-pS395 Antibody (Cat.#AP3579a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.5ug per ml.

Phospho-MDM2(S395) Antibody - Background

MDM2 is a target of the transcription factor tumor protein p53. This protein is a nuclear phosphoprotein that binds and inhibits transactivation by tumor protein p53, as part of an autoregulatory negative feedback loop. Overexpression of MDM2 can result in excessive inactivation of tumor protein
p53, diminishing its tumor suppressor function. This protein has E3
ubiquitin ligase activity, which targets tumor protein p53 for proteasomal degradation. MDM2 also affects the cell cycle,apoptosis, and tumorigenesis through interactions with other proteins, including retinoblastoma 1 and ribosomal protein L5.

Phospho-MDM2(S395) Antibody - References

Lu X, et al. (2007) The Wip1 Phosphatase acts as a gatekeeper in the p53-Mdm2 autoregulatory loop. Cancer Cell 12, 342-54
Balass M, et al. (2002) Characterization of two peptide epitopes on Mdm2 oncoprotein that affect p53 degradation. Peptides 23, 1719-25
Maya R, et al. (2001) ATM-dependent phosphorylation of Mdm2 on serine 395: role in p53 activation by DNA damage. Genes Dev 15, 1067-77

Phospho-MDM2(S395) Antibody - Citations

- Paradoxical Role for Wild-Type p53 in Driving Therapy Resistance in Melanoma