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MDM2

Mouse Monoclonal antibody(Mab)
Catalog # AD80300

Product Information

Application	IHC-P
Primary Accession	Q00987
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	525A4C1
Calculated MW	55233

Additional Information

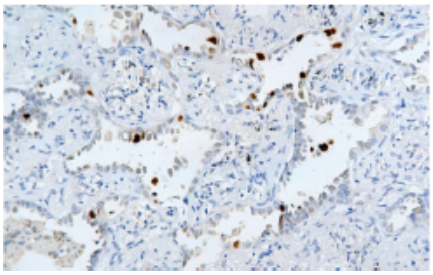
Gene ID	4193
Gene Name	MDM2
Other Names	E3 ubiquitin-protein ligase Mdm2, 2.3.2.27, Double minute 2 protein, Hdm2, Oncoprotein Mdm2, RING-type E3 ubiquitin transferase Mdm2, p53-binding protein Mdm2, MDM2
Dilution	IHC-P~~Ready-to-use
Storage	Maintain refrigerated at 2-8°C.
Precautions	MDM2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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

Images



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