

Anti-MDM2 (pS186/S188) Antibody

Rabbit polyclonal antibody to MDM2 (pS186/S188)

Catalog # AP61449

Product Information

Application	WB, IF
Primary Accession	Q00987
Reactivity	Human, Drosophila
Host	Rabbit
Clonality	Polyclonal
Calculated MW	55233

Additional Information

Gene ID	4193
Other Names	E3 ubiquitin-protein ligase Mdm2; Double minute 2 protein; Hdm2; Oncoprotein Mdm2; p53-binding protein Mdm2
Target/Specificity	Recognizes endogenous levels of MDM2 with a site at pS186/S188 protein.
Dilution	WB~~WB (1/500 - 1/1000), IF/IC (1/50 - 1/200) IF~~WB (1/500 - 1/1000), IF/IC (1/50 - 1/200)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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 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. 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

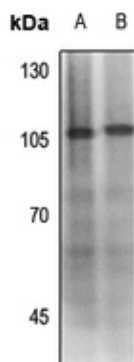
Tissue Location

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

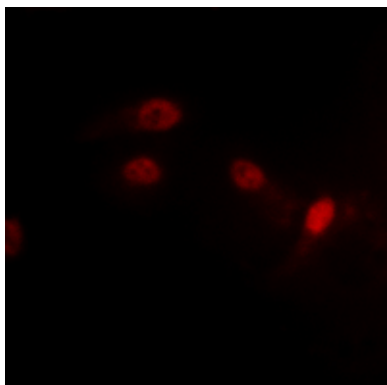
Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human MDM2 with a site at pS186/S188. The exact sequence is proprietary.

Images



Western blot analysis of MDM2 (pS186/S188) expression in SGC7901 (A), Panc1 (B) whole cell lysates.



Immunofluorescent analysis of MDM2 (pS186/S188) staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a Alexa Fluor 594-conjugated secondary antibody (red) in PBS at room temperature in the dark.

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