SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-MDM2 antibody

Catalog Number: SL23748R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	MDM2
Immunogen:	KLH conjugated synthetic peptide derived from human MDM2 : 401-490/490
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse(predicted:Rat,Dog,Pig)
Predicted MW.:	55kDa
Subcellular Location:	The nucleus cytoplasmic
Background:	Inhibits TP53/p53- and TP73/p73-mediated cell cyclearrest and apoptosis by binding its transcriptional activation domain. Functions as a ubiquitin ligase E3, in the presence of E1 and E2, toward p53 and itself. Permits the nuclear export of p53 and targets it for proteasome-mediated proteolysis. Binds p53, p73, ARF(P14), ribosomal protein L5 and specifically to RNA. Can interact also with retinoblastoma protein(RB), E1A-associated protein EP300 and the E2F1 transcription factor. Forms a ternary complex with TP53/p53 and WWOX. Interacts with CDKN2AIP, MTBP, TRBG1 and USP7. Isoform Mdm2-F does not interact with TP53/p53. Interacts with PYHIN1. Interacts with, and ubiquitinates HIV-1 Tat. Belongs to the MDM2/MDM4 family. **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

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	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. **Subcellular Location:** 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. **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. **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. 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. **Similarity:** Belongs to the MDM2/MDM4 family. Contains 1 RanBP2-type zinc finger. Contains 1 RING-type zinc finger. **Database links:** **Entrez Gene:** 4193 Human **Entrez Gene:** 17246 Mouse **Entrez Gene:** 314856 Rat Omim: 164785 Human **SwissProt:** Q00987 Human **SwissProt:** P23804 Mouse **Unigene:** 484551 Human **Unigene:** 22670 Mouse **Unigene:** 447669 Mouse

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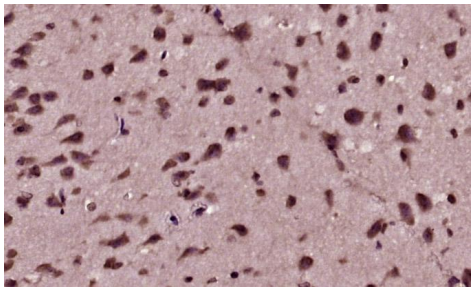
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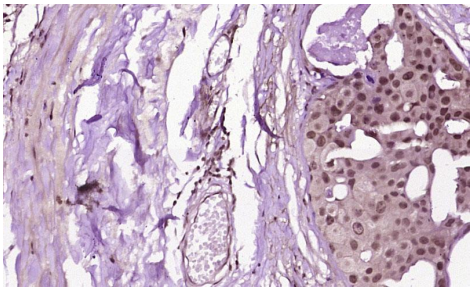
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	Unigene: 91829 Rat The Mdm2 gene plays an important role in the occurrence and development of Tumour, and overexpression of Mdm2 protein is importantly associated with p53 gene mutation. The Mdm2 gene plays an important role in the occurrence and development of Tumour. MDM2 is widely distributed in normal human tissues and can interact with p53 protein. Activated p53 induces MDM2 expression, and MDM2 expression in turn can inhibit the transcriptional activation function of wild-type p53. MDM2 is usually overexpressed in soft tissue sarcomas, and is also expressed to some extent in bladder cancer, breast cancer, cervical cancer, and glioma, and may be related to Tumour cell drug resistance.

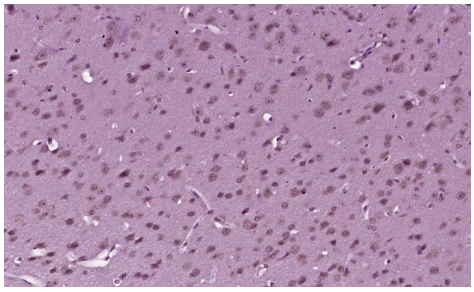
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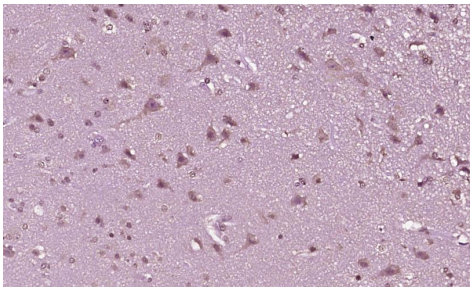
Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MDM2) Polyclonal Antibody, Unconjugated (SL23748R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Human breast carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MDM2) Polyclonal Antibody, Unconjugated (SL23748R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MDM2) Polyclonal Antibody, Unconjugated (SL23748R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Human brain glioma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MDM2) Polyclonal Antibody, Unconjugated (SL23748R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

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