



Rabbit Anti-MDM2 antibody

SL23748R

Product Name:	MDM2
Chinese Name:	双微体2癌基因抗体
Alias:	Double minute 2 protein; Hdm 2; HDM2; MDM 2; Mdm2 transformed 3T3 cell double minute 2 p53 binding protein (mouse) binding protein 104kDa; MDM2BP; Mouse Double Minute 2; MTBP; Murine Double Minute Chromosome 2; Oncoprotein Mdm2; p53 Binding Protein Mdm2; Ubiquitin protein ligase E3 Mdm2; MDM2_HUMAN; E3 ubiquitin-protein ligase Mdm2.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	55kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human MDM2 :401-490/490
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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 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 deubiquitination 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.

SWISS:
Q00987

Gene ID:
4193

Database links:

[Entrez Gene: 4193](#)Human

[Entrez Gene: 17246](#)Mouse

[Entrez Gene: 314856](#)Rat

[Oimim: 164785](#)Human

[SwissProt: Q00987](#)Human

[SwissProt: P23804](#)Mouse

[Unigene: 484551](#)Human

[Unigene: 22670](#)Mouse

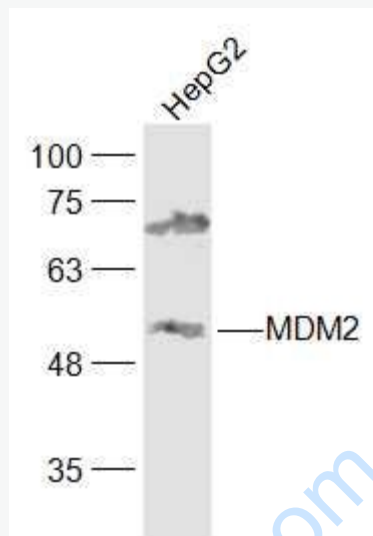
[Unigene: 447669](#)Mouse

[Unigene: 91829](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Mdm2基因在Tumour发生、发展的过程中起着重要作用, Mdm2蛋白过度表达与p53基因突变有重要的关联性。Mdm2基因在Tumour发生、发展的过程中起着重要作用。MDM2广泛分布于人体正常组织中, 可与p53蛋白相互作用。活化的p53导致MDM2表达, 而MDM2的表达又可抑制野生型p53的转录激活作用。MDM2通常在软组织肉瘤中有过表达现象, 而在膀胱癌、乳腺癌、宫颈癌、胶质细胞瘤中也有一定程度的表达, 并可能与Tumour细胞的耐药有关。



Sample:

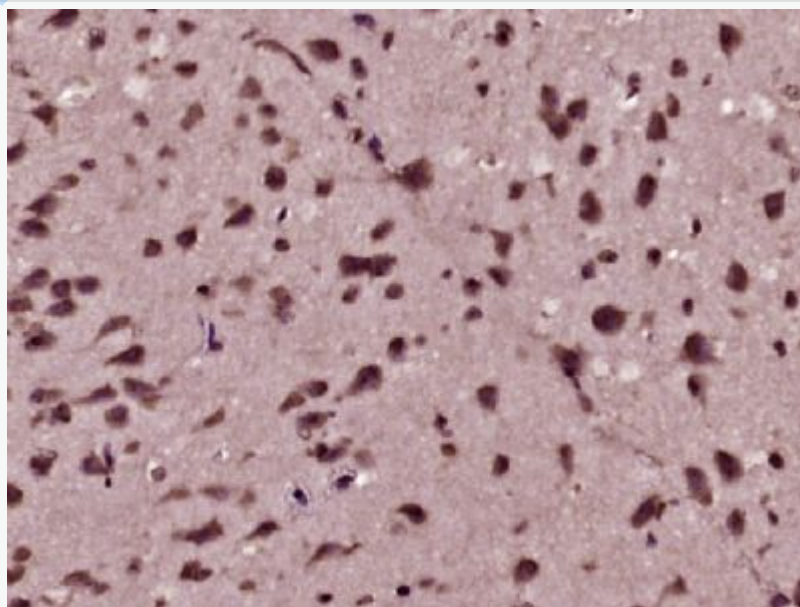
HepG2(Human) Cell Lysate at 30 ug

Primary: Anti-MDM2 (SL23748R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

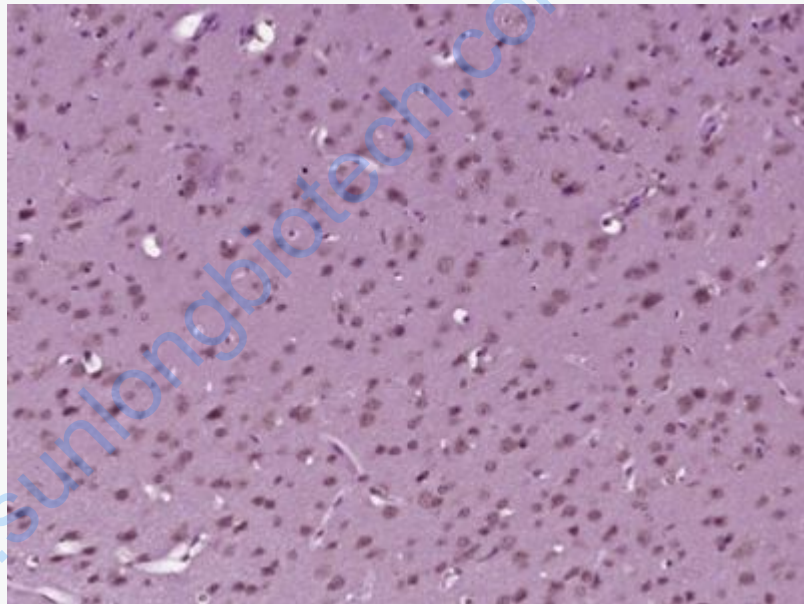
Predicted band size: 55 kD

Observed band size: 55 kD

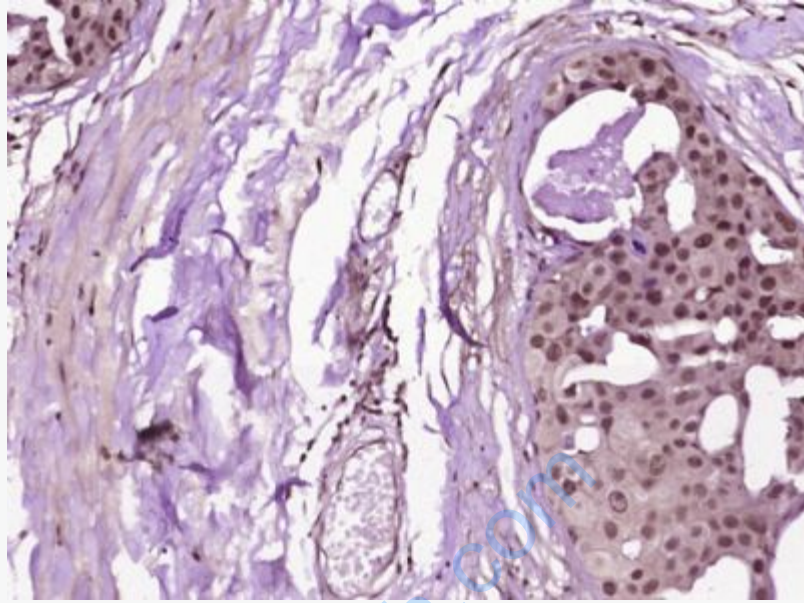


Picture:

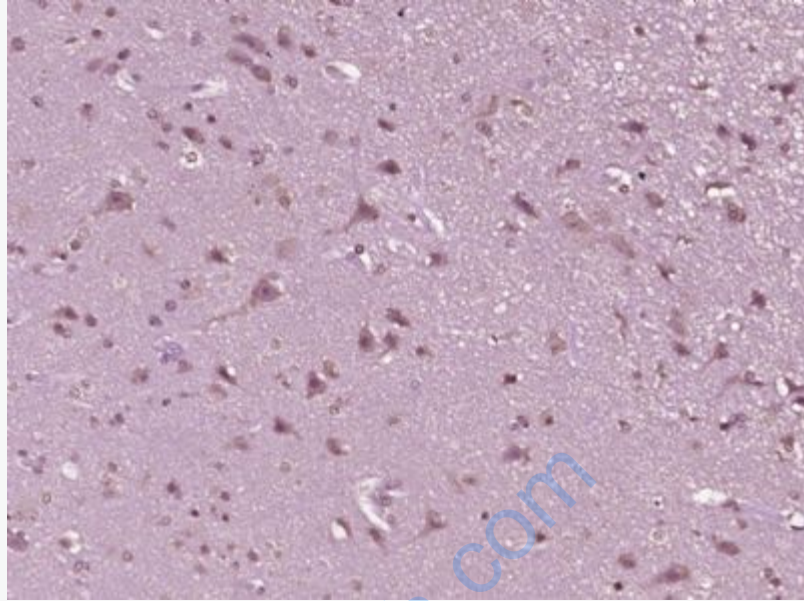
Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (MDM2) Polyclonal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