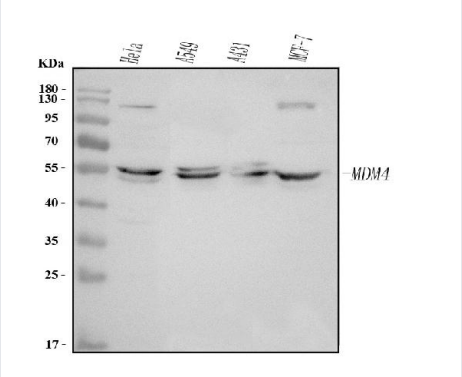
MDMX/MDM4 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	MDMX/MDM4, Polyclonal Antibody
Full Product Name	Anti-MDMX/MDM4 Antibody Picoband
Product Gene Name	anti-MDMX/MDM4 antibody
Product Synonym Names	SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 2; Probable global transcription activator SNF2L2; ATP-dependent helicase SMARCA2; BRG1-associated factor 190B; BAF190B; Protein brahma homolog; hBRM; SNF2-alpha; SWI/SNF-related matrix-associated actin-dependent regulator of chromatin subfamily A member 2; SMARCA2; BAF190B; BRM; SNF2A; SNF2L2
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Lyophilized. Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
Purity/Purification	Immunogen affinity purified.
Specificity	Detected in milk (at protein level).
Preparation and Storage	At -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months.Avoid repeated freezing and thawing.
Molecular Weight	54,864 Da
Chromosome Location	Chromosome: 1; NC_000001.10 (204485507..204527248). Location: 1q32
OMIM	602704
3D Structure	ModBase 3D Structure for O15151
Immunogen	E coli-derived human MDMX/MDM4 recombinant protein (Position: A8-A490).
Subcellular Localization	Nucleus
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500ug/ml.
Cross Reactivity	No cross-reactivity with other proteins.
Protein Function	Involved in transcriptional activation and repression of select genes by chromatin remodeling (alteration of DNA-nucleosome topology). Component of SWI/SNF chromatin remodeling complexes that carry out key enzymatic activities, changing chromatin structure by altering DNA-histone contacts within a nucleosome in an ATP-dependent manner. Binds DNA non-specifically. Belongs to the neural progenitors-specific chromatin remodeling complex (npBAF complex) and the neuron-specific chromatin remodeling complex (nBAF complex). During neural development a switch from a stem/progenitor to a postmitotic chromatin remodeling mechanism occurs as neurons exit the cell cycle and become committed to their adult state. The transition from proliferating neural stem/progenitor cells to postmitotic neurons requires a switch in subunit composition of the npBAF and nBAF complexes. As neural progenitors exit mitosis and differentiate into neurons, npBAF complexes which contain ACTL6A/BAF53A and PHF10/BAF45A, are exchanged for homologous alternative ACTL6B/BAF53B and DPF1/BAF45B or DPF3/BAF45C subunits in neuron-specific complexes (nBAF). The npBAF complex is essential for the self-renewal/proliferative capacity of the multipotent neural stem cells. The nBAF complex along with CREST plays a role regulating the activity of genes essential for dendrite growth.
Product Categories/Family for anti-MDMX/MDM4 antibody	Primary Antibodies; Cancer; Energy Metabolism; Energy Transfer Pathways; Metabolic Signaling Pathways; Metabolism; Pathways and Processes; Signal Transduction

ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-MDMX/MDM4 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-MDMX/MDM4 antibody	WB: 0.25-0.5ug/ml, Human ELISA: 0.1-0.5ug/ml
Related Product Information for anti-MDMX/MDM4 antibody	The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Product References and Citations for anti-MDMX/MDM4 antibody	1. "Entrez Gene: MDM4 Mdm4, transformed 3T3 cell double minute 4, p53 binding protein (mouse)".2. Kadakia M, Brown TL, McGorry MM, Berberich SJ (Dec 2002). "MdmX inhibits Smad transactivation". Oncogene21 (57): 8776-85.3. Shvarts A, Bazuine M, Dekker P, Ramos YF, Steegenga WT, Merckx G, van Ham RC, van der Houven van Oordt W, van der Eb AJ, Jochemsen AG (Sep 1997). "Isolation and identification of the human homolog of a new p53-binding protein, Mdmx". Genomics 43 (1): 34-42.
Other Notes	Small volumes of anti-MDMX/MDM4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for MDMX/MDM4 purchase	MBS1758243 is an antibody targeting MDMX/MDM4. Also known as Anti-MDMX/MDM4 Antibody Picoband. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-MDMX/MDM4 antibody
Figure 1. Western blot analysis of MDMX/MDM4 using anti-MDMX/MDM4 antibody (MBS1758243).Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.Lane 1: human Hela whole cell lysates,Lane 2: human A549 whole cell lysates,Lane 3: human A431 whole cell lysates,Lane 4: human MCF-7 whole cell lysates.After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-MDMX/MDM4 antigen affinity purified polyclonal antibody (#MBS1758243) at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (#MBS176460) with Tanon 5200 system. A specific band was detected for MDMX/MDM4 at approximately 55 kDa. The expected band size for MDMX/MDM4 is at 55 kDa.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for MDMX/MDM4. It may not necessarily be applicable to this product.

NCBI GI #	323510634
NCBI GeneID	4194
NCBI Accession #	NP_001191100.1
UniProt Primary Accession #	O15151
UniProt Secondary Accession #	Q2M2Y2; Q32SL2; Q6GS18; Q8IV83

UniProt Related Accession #	O15151
GenBank Nucleotide #	NM_001204171.1
NCBI Official Full Name	protein Mdm4 isoform 2
NCBI Official Synonym Full Names	Mdm4 p53 binding protein homolog (mouse)
NCBI Official Symbol	MDM4
NCBI Official Synonym Symbols	HDMX; MDMX; MRP1
UniProt Protein Name	Protein Mdm4
UniProt Synonym Protein Names	Double minute 4 protein; Mdm2-like p53-binding protein; Protein Mdmx; p53-binding protein Mdm4
UniProt Gene Name	MDM4
UniProt Synonym Gene Names	MDMX
UniProt Entry Name	MDM4_HUMAN
NCBI Protein Information	protein Mdm4; protein Mdmx; MDM4-related protein 1; mdm2-like p53-binding protein; double minute 4, human homolog of; p53-binding protein
NCBI Summary for MDMX/MDM4	This gene encodes a nuclear protein that contains a p53 binding domain at the N-terminus and a RING finger domain at the C-terminus, and shows structural similarity to p53-binding protein MDM2. Both proteins bind the p53 tumor suppressor protein and inhibit its activity, and have been shown to be overexpressed in a variety of human cancers. However, unlike MDM2 which degrades p53, this protein inhibits p53 by binding its transcriptional activation domain. This protein also interacts with MDM2 protein via the RING finger domain, and inhibits the latter's degradation. So this protein can reverse MDM2-targeted degradation of p53, while maintaining suppression of p53 transactivation and apoptotic functions. Alternatively spliced transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Feb 2011]
UniProt Comments for MDMX/MDM4	MDM4: Inhibits p53/TP53- and TP73/p73-mediated cell cycle arrest and apoptosis by binding its transcriptional activation domain. Inhibits degradation of MDM2. Can reverse MDM2-targeted degradation of TP53 while maintaining suppression of TP53 transactivation and apoptotic functions. Interacts with MDM2, TP53, TP73 and USP2. Found in a trimeric complex with UPB2, MDM2 and MDM4. Interacts (phosphorylated) with YWHAG; negatively regulates MDM4 activity toward TP53. Down-regulated by cisplatin. Expressed in all tissues tested with high levels in thymus. Belongs to the MDM2/MDM4 family. 5 isoforms of the human protein are produced by alternative splicing. Protein type: Ubiquitin conjugating system; Ubiquitin ligase; EC 6.3.2.-; Ligase Chromosomal Location of Human Ortholog: 1q32 Cellular Component: nucleoplasm; nucleus Molecular Function: protein binding; enzyme binding; zinc ion binding Biological Process: cell proliferation; negative regulation of cell proliferation; protein stabilization; DNA damage response, signal transduction by p53 class mediator; G0 to G1 transition; positive regulation of cell proliferation; protein complex assembly; negative regulation of transcription from RNA polymerase II promoter; negative regulation of protein catabolic process; negative regulation of apoptosis
Research Articles on MDMX/MDM4	**1.** quantify the expression of MDM4 and MDM2 mRNA and protein in human fetal retinae, primary retinoblastomas, retinoblastoma cell lines and several independent orthotopic retinoblastoma xenografts
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