

## Product datasheet for **AM00224PU-T**

### MDM2 (154-167) Mouse Monoclonal Antibody [Clone ID: SMP14]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	SMP14
Applications:	IHC
Recommended Dilution:	<b>Immunohistochemistry on Frozen Sections.</b> <b>Immunohistochemistry on Resin Sections.</b> <b>Immunohistochemistry on Paraffin Sections:</b> 1/200-1/500. This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. EDTA pH8.0 is recommended for this purpose. <b>Histology Positive Control Tissue:</b> Breast carcinoma. Clone SMP14 has been reported for use in Western blotting.
Reactivity:	Human, Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Synthetic peptide corresponding to amino acids 154-167 of Human MDM2
Specificity:	This antibody recognises the 90kD MDM2 protein, which forms a complex with p53 leading to p53 inhibition. MDM2 also acts to stimulate cell proliferation via its induction of transcription factors such as E2F1 and DPI. MDM2 is over expressed in a range of Human malignancies, including soft tissue sarcomas, breast cancer and bladder cancer.
Formulation:	PBS, pH 7.4 State: Purified State: Liquid purified IgG fraction Preservative: 0.09% Sodium Azide
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein G
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.



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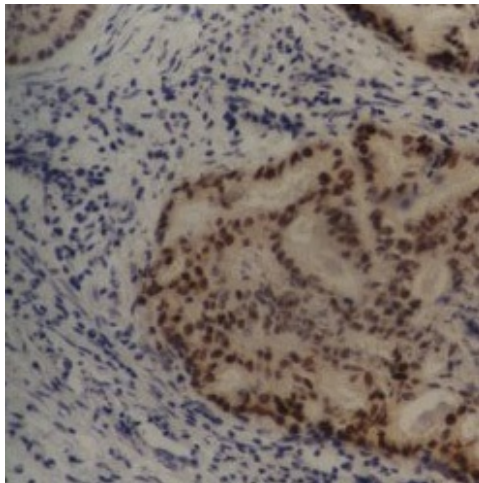
**Gene Name:** MDM2 proto-oncogene

**Database Link:** [Entrez Gene 4193 Human Q00987](#)

**Background:** MDM2 is a nuclear phosphoprotein with an apparent molecular mass of 90 kD that forms a complex with the p53 tumor suppressor protein. Human MDM2 was identified as a homologous product of the 'murine double minute 2' gene (mdm2). The MDM2 gene enhances the tumorigenic potential of cells when it is overexpressed and encodes a putative transcription factor. Forming a tight complex with the p53 gene, the MDM2 oncogene can inhibit p53 mediated transactivation, MDM2 also binds to p53 protein. Inactivation of tumor suppressor genes leads to deregulated cell proliferation and is a key factor in human tumorigenesis. p53 can be subjected to negative regulation by the product of a single cellular protooncogene. The interference of binding to p53 prevents the interaction of MDM2 and its regulation of the transcriptional activity of p53 in vivo. Direct association of p53 with the cellular protein MDM2 results in ubiquitination and subsequent degradation of p53. MDM2 p53 complexes were preferentially found in S/G2M phases of the cell cycle. The MDM2 gene is alternatively spliced, producing 5 additional splice variant transcripts from the full length MDM2 gene. The alternatively spliced transcripts tend to be expressed in tumorigenic tissue, whereas the full length MDM2 transcript is expressed in normal tissue.

**Synonyms:** p53-binding protein Mdm2, Oncoprotein Mdm2, Double minute 2 protein, Hdm2

### Product images:



Staining of Human breast carcinoma: Formalin Fixed, Paraffin processed tissue with MDM2 antibody