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Inspiration for Life Science

MONOCLONAL ANTIBODY

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Catalog No. BAM-71-141-EX

Anti-MdmX (Mdm4)/HdmX p-Ser367

BACKGROUND

MdmX (synonyms: Mdm4, HdmX) inhibits p53-and p73-dependent cell cycle arrest and apoptosis by binding to the transcription activation domains of these proteins. MdmX consists of 490 amino acids with the molecular weight of 54,864 and contains a RIING-finger domain and a nuclear transport signal. It is known that the protein migrates aberrantly in SDS-PAGE at the position of an 80-kDa protein. MdmX is phosphorylated at Ser367 by Chk2 kinase downstream of ATM in response to DNA damage, and as a result, it binds to14-3-3 and is transported into nucleus where it is degraded by Mdm2. This process activates the p53 functions (1, 2 and 3).

This product is Mouse monoclonal antibody (clone #15) specific to the MdmX protein phosphorylated at Ser367.

Product type	Primary antibodies
Host	Mouse
Source	Monoclonal antibody raised against synthetic peptide corresponding to a sequence of human Mdmx protein surrounding phospho-Ser367.
Form	Liquid Purified monoclonal antibody（IgG）1 mg/ml in PBS (-), 50% glycerol
Volume	50 μg
Concentration	
Specificity	
Antigen	A synthetic peptide corresponding to a sequence of human Mdmx protein surrounding phospho-Ser367
Isotype	Mouse IgG2b (κ)

Application notes

WB, IP, ELISA, Indirect Immuno-staining

Recommended use

Recommended dilutions

Western blotting: (~1 ug/ml)

Optimal dilutions/concentrations should be determined by the end user.

Data Link UniProtKB/Swiss-Prot O15151 (MDM4_HUMAN)

Staining Pattern

Cross reactivity

Storage

-20°C (Long period -70°C)

References

This product has been used for the following references.

1. Okamoto K et al "DNA damage-induced phosphorylation of MdmX at serine 367 activates p53 by targeting Mdm2-dependent degradation" Mol Cell Biol 25:9608-9620 (2005) PMID: 16227609
2. Chen L et al "ATM and Chk2-dependent phosphorylation of MDMX contribute to p53 activation after DNA damage" EMBO J 24: 3411-3422 (2005) PMID: 16163388
3. Pereg Y et al "Differential roles of ATM- and Chk2 mediated phosphorylations of HdmX in response to DNA damage" Mol Cell Biol 26: 6819-6831 (2006) PMID: 16943424

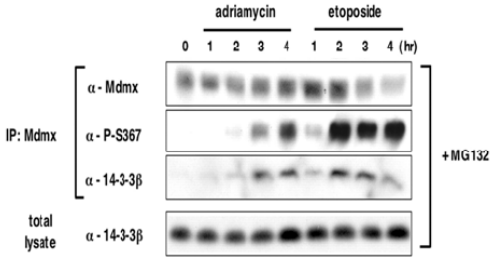

Figure 1 Induction of S367 phosphorylation after DNA damage is associated with increased binding of 14-3-3 to MdmX and accelerated MdmX degradation.
MCF cells were preincubated with the proteasome inhibitor MG132 (20 uM) and exposed to DNA damaging agent, adriamycin (3 uM) or etoposide (20 uM), for the indicated periods. The cell lysates were used for immunoprecipitation with anti-MdmX antibody (D-19, Santa-Cruz) and The MdmX immunoprecipitates and the total lysate were analyzed by Western blotting using the indicated antibodies including this product (anti P-S367).

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Manufactured by BioAcademia,Inc.

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