

Lot # XXXXX

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MATERIAL DATA SHEET

Mdm2/Hdm2, human recombinant

Cat. # E3-204

Double minute 2 protein (Mdm2, also known as Hdm2) is a RING-finger Ubiquitin E3 ligase that acts as a major regulator of the tumor suppressor p53. Mdm2 inhibits p53-mediated cell cycle arrest and apoptosis by binding its transcriptional activation domain. The E3 ligase activity is confined to the C-terminal domain of Mdm2 and is responsible for the ubiquitinylation and subsequent proteasomal degradation of p53. Although the isolated RING domain is capable of p53 ubiquitinylation, other regions of the protein including a central acidic domain are also crucial for full E3 ligase activity. Mdm2 also regulates its own intracellular levels by auto-ubiquitinylation, and can be SUMOylated which decreases autoubiquitinylation activity but increases activity toward p53. Mdm2 also affects the cell cycle and apoptosis through interactions with other proteins such as retinoblastoma1 (pRB) and ribosomal protein L5. This recombinant protein is untagged.

Product Information

Quantity:	50 µg
Stock:	X mg/ml (X µM) in 50 mM Hepes pH 8.0, 200 mM NaCl, 10% glycerol, 5 mM TCEP
MW:	55 kDa
Purity:	> 85% by SDS-PAGE

Use & Storage

Use:	Typical enzyme concentration to support conjugation <i>in vitro</i> is 0.5-5 µM depending on conditions.
Storage:	Store at -80°C. Avoid multiple freeze/thaw cycles.

Literature

References:	Brooks C.L., <i>et al.</i> (2007) <i>J.Biol.Chem</i> 282 : 22804-22815 Bushman T., <i>et al.</i> (2001) <i>J.Biol.Chem</i> 276 : 40389-40394 Dornan D., <i>et al.</i> (2004) <i>Nature</i> 429 :86-92 Grossman S.R., <i>et al.</i> (2003) <i>Science</i> 300 :342-344 Hu M., <i>et al</i> (2006) <i>PLoS Biol.</i> 4 :228-239 Kawai H., <i>et al.</i> (2003) <i>Mol. Cell. Biol.</i> 23 : 4939-4947 Lai Z., <i>et al.</i> (2001) <i>J.Biol.Chem</i> 276 : 31357-31367 Li M., <i>et al.</i> (2003) <i>Science</i> 301 :1972-1975 Linares L.K., <i>et al.</i> (2003) <i>Proc.Natl.Acad.Sci.</i> 100 :12009-12014 Sheng Y., <i>et al.</i> (2006) <i>Nat.Struc.Mol.Biol.</i> 13 :285-291 Wu H., <i>et al.</i> (2011) <i>Nature Med.</i> 17 : 347-356 Yan Y. and Chen J. (2005) <i>Biochem. Biophys. Res. Comm.</i> 332 :702-709 Yu G.W., <i>et al.</i> (2006) <i>Proc.Natl.Acad.Sci.</i> 103 :1227-1323
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