Lot # XXXXX

BostonBiochem

MATERIAL DATA SHEET

His_6-p53, *human recombinant*
Cat. # SP-450

Tumor suppressor protein p53, a nuclear transcription factor, plays an essential role in the regulation of cell cycle and is frequently mutated or inactivated in many cancers. Numerous post-translational modifications modulate p53 activity including ubiquitination, phosphorylation, acetylation and methylation. The stability of p53 is regulated via the ubiquitin-proteasome pathway (UPP). MDM2 is an oncogenic ubiquitin E3 ligase that ubiquitinates p53, inhibits its transcriptional activity and promotes its degradation. Other E3 ligases that promote the proteasome-mediated degradation of p53 include Pirh2, COP1 and p300. USP7 (HAUSP) stabilizes p53 by deubiquitination and induces p53-dependent cell growth repression and apoptosis. Additional factors such as $p14^{ARF}$ and MdmX also modulate p53 function via the UPP. This recombinant protein is N-terminally tagged and produced in *E.coli*. Accession # NP_000537.

Product Information	
Quantity:	20 µg
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 8.0, 450 mM NaCl, 10% glycerol. Actual concentration varies with lot number.
MW:	45.6 kDa
Purity:	> 95% by SDS-PAGE

Use & Storage	
Use:	Typical concentrations for *in vitro* assays are 0.5-2.5 µM depending on experimental conditions and detection method.
Storage:	Store at -80°C. Avoid multiple freeze/thaw cycles.

Literature

References:

Brooks CL and Gu W. (2006) Mol.Cell. **21**:307-15
Dornan D, *et al.* (2004) Nature **429**:86-92
Grossman S.R., *et al.* (2003) Science **300**:342-344
Hu M., *et al* (2006) PLoS Biol. **4**:228-239
Kussie P.H., *et al.* (1996) Science **274**:948-953
Lamb P. and Crawford L. (1986) Molec.Cell.Biol. **6**:1379-1385, 1986.
Li M, *et al.* (2002) Nature **416**:648-653
Li M, *et al.* (2003) Science **301**:1972-1975
Meulmeester E. and Jochemsen A.G. (2008) Curr.Canc.Drug. Targets **8**:87-97
Sheng Y, *et al.* (2006) Nat.Struc.Mol.Biol. **13**:285-291

840 Memorial Drive, Cambridge, MA 02139 Phone: 617-241-7072 FAX: 617-492-3565
www.bostonbiochem.com

For Laboratory Research Use Only, Not For Use in Humans

840 Memorial Drive, Cambridge, MA 02139 Phone: 617-241-7072 FAX: 617-492-3565
www.bostonbiochem.com