

Recombinant p53 protein

Catalog No: 31465

Lot No: 29713001

Expressed In: *E. coli*

Quantity: 10 µg

Concentration: 0.38 µg/µl

Source: Human

Buffer Contents: 10 µg recombinant p53 protein supplied in 50 mM Tris-HCl, pH 8, 200 mM NaCl, 5 mM beta-mercaptoethanol and 5% glycerol.

Background: p53 is the most important tumor suppressor in the genome. It is responsive to numerous genotoxic stresses, which activates its transcription factor activity, in turn causing cell-cycle arrest by activating expression of p21 Cip/WAF. Mutant p53 that has lost its DNA-binding function interferes with the activity of native p53 and leads to oncogenic transformation. Alternatively, transformation may be caused by overexpression of Mdm2/Hdm2, an ubiquitin ligase specific for p53, which causes its destabilization. Inactivation of p53 is often coincident with hyperactivation of NFκB (NFκB p50 and NFκB p65), both of which serve to inhibit apoptosis.

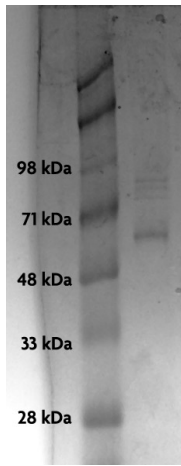
Protein Details: p53 is a tumor suppressor protein functioning as a sequence-specific transcription factor important for cell cycle arrest, apoptosis, and DNA-damage response. Recombinant p53, transcript variant 1, was expressed in *E. coli* from human cDNA (accession number NM_000546.5) with an N-terminal His-Tag.

Active Motif also offers Recombinant p53 protein (Catalog No. 31103) that was expressed in Baculovirus.

Application Notes: Recombinant p53 is suitable for use in Active Motif's TransAM® assay as a protein standard, *in vitro* transcription assays, protein-protein interactions and protein-DNA interaction studies. A recommended starting point for *in vitro* transcription assays is 20-100 ng per reaction. The molecular weight of the protein is 53 kDa.

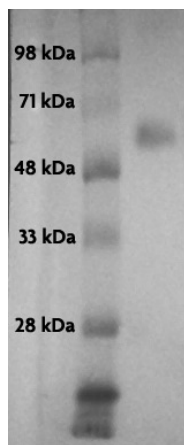
For larger package sizes of Recombinant p53 protein, please refer to Cat. No. 81091 / 81791.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.



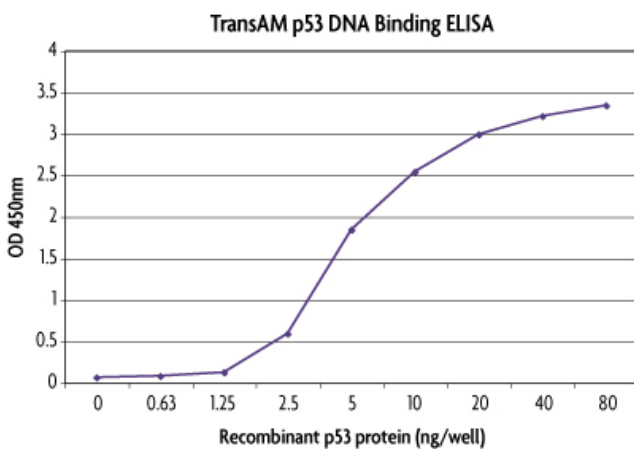
Recombinant p53 protein analyzed by SDS-PAGE gel.

SDS-PAGE analysis of 500 ng Recombinant p53 protein (lane 2) and protein marker (lane 1).



Recombinant p53 protein analyzed by Western blot.

Western blot image of 500 ng Recombinant p53 protein, active tested at a 1:5,000 dilution with p53 antibody.



TransAM[®] standard curve generated using Recombinant p53 protein, active.

The standard curve for TransAM[®] was generated using a range of 80 – 0.625 ng of protein and run on the TransAM[®] p53 ELISA Kit (Catalog No. 41196).