

Datasheet for ABIN2669713

p53 Protein (His tag)

3 Images



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Overview

Quantity:	10 µg
Target:	p53 (TP53)
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This p53 protein is labelled with His tag.
Application:	Standard (STD), Protein Interaction (PI), In vitro Assay (in vitro)

Product Details

Characteristics:	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 polyhistidine tag. Active Motif also offers Recombinant p53 protein (Catalog No. 31103) that was expressed in Baculovirus.
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Target Details

Target:	p53 (TP53)
Alternative Name:	p53 (TP53 Products)
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

Target Details

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.

Pathways:

[p53 Signaling](#), [MAPK Signaling](#), [PI3K-Akt Signaling](#), [Apoptosis](#), [AMPK Signaling](#), [Chromatin Binding](#), [ER-Nucleus Signaling](#), [Positive Regulation of Endopeptidase Activity](#), [Hepatitis C](#), [Protein targeting to Nucleus](#), [Autophagy](#), [Warburg Effect](#)

Application Details

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.

Restrictions:

For Research Use only

Handling

Handling Advice:

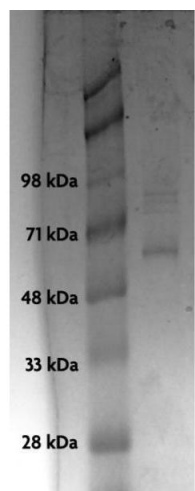
Avoid repeated freeze/thaw cycles and keep on ice when not in storage.

Storage:

-80 °C

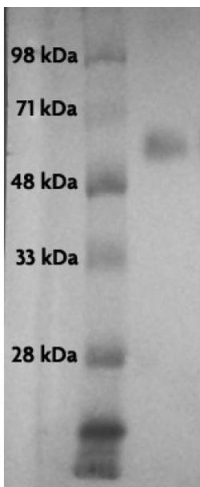
Storage Comment:

Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation.



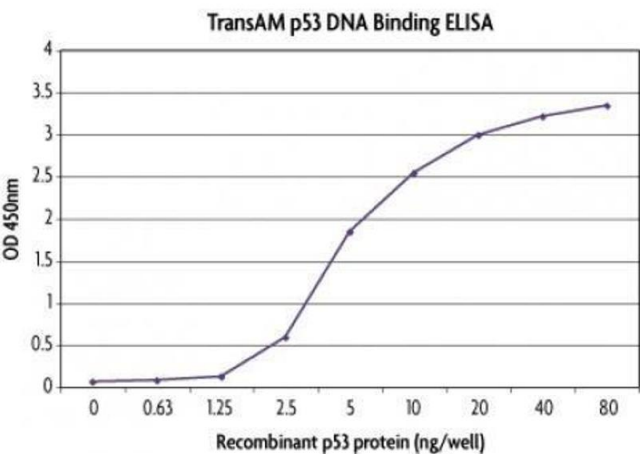
Western Blotting

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



Western Blotting

Image 2. 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.



Activity Assay

Image 3. 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).