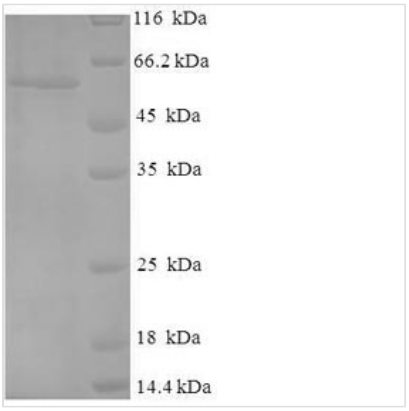
Recombinant Human Cellular tumor antigen p53 (TP53)

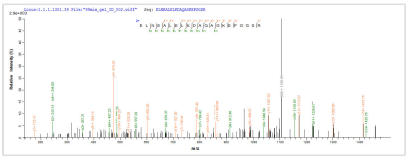
Product Code	CSB-EP024077HU
Relevance	Acts as a tumor suppressor in many tumor types; induces growth arrest or apoptosis depending on the physiological circumstances and cell type. Involved in cell cycle regulation as a trans-activator that acts to negatively regulate cell division by controlling a set of genes required for this process. One of the activated genes is an inhibitor of cyclin-dependent kinases. Apoptosis induction ses to be mediated either by stimulation of BAX and FAS antigen expression, or by repression of Bcl-2 expression. In cooperation with mitochondrial PPIF is involved in activating oxidative stress-induced necrosis; the function is largely independent of transcription. Induces the transcription of long intergenic non-coding RNA p21 (lincRNA-p21) and lincRNA-Mkln1. LincRNA-p21 participates in TP53-dependent transcriptional repression leading to apoptosis and se to have to effect on cell-cycle regulation. Implicated in Notch signaling cross-over. Prevents CDK7 kinase activity when associated to CAK complex in response to DNA damage, thus stopping cell cycle progression. Isoform 2 enhances the transactivation activity of isoform 1 from some but not all TP53-inducible promoters. Isoform 4 suppresses transactivation activity and impairs growth suppression mediated by isoform 1. Isoform 7 inhibits isoform 1-mediated apoptosis. Regulates the circadian clock by repressing CLOCK-ARNTL/BMAL1-mediated transcriptional activation of PER2 .
Abbreviation	Recombinant Human TP53 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P04637
Alias	Antigen NY-CO-13;Phosphoprotein p53Tumor suppressor p53
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MEEPQSDPSVEPPLSQETFSDLWKLLPENNVLSPLPSQAMDDLMLSPDDIEQ WFTEDPGPDEAPRMPEAAPPVAPAPAAPTPAAPAPAPSWPLSSSVPSQKTYQ GSYGFRLGFLHSGTAKSVTCTYSPALNKMFCQLAKTCPVQLWVDSTPPPGTR VRAMAIYKQSQHMTEVVRRCPHHERCSDSDGLAPPQHLIRVEGNLRVEYLDD RNTFRHSVVVPYEPPEVGSDCTTIHYNYMCNSSCMGGMNRRPILTIITLEDSS GNLLGRNSFEVRVCACPGRDRRTEEENLRKKGEPHHELPPGSTKRALPNNTS SSPQPKKKPLDGEYFTLQIRGRERFEMFRELNEALELKDAQAGKEPGGSRAH SSHLKSKKGQSTSRHKKLMFKTEGPDSD
Research Area	Apoptosis

Source	E.coli
Target Names	TP53
Expression Region	1-393aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	59.7kDa
Protein Length	Full Length

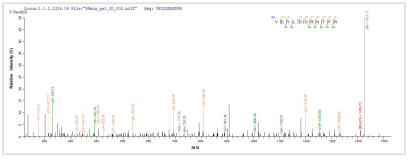
Image



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP024077HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) TP53.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP024077HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) TP53.

Description

Recombinant Human Cellular tumor antigen p53 (TP53) is a full length protein expressed with an N-terminal 6xHis-SUMO-tagged in the E.coli. Its expression region corresponds to 1-393aa of human TP53 protein. Its purity was determined by SDS-PAGE and reached up to 90% and presented a molecular mass band of 59.7kDa on the gel. This recombinant TP53 protein may be used to synthesize antibodies against TP53 or on the studies of TP53-associated signal transduction. TP53 proteins in-stock are available.
TP53 plays a critical role in many tumor types as a tumor suppressor. It responds to diverse cellular stresses to regulate expression of target genes, inducing cell cycle arrest, apoptosis, senescence, DNA repair, or changes in metabolism depending on the physiological circumstances and cell type. TP53 mutations are associated with a variety of human cancers, including Li-Fraumeni syndrome and Osteogenic Sarcoma, etc.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the

	contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.