Datasheet

Product Name	Recombinant Human Cellular tumor antigen p53(TP53)
Catalog Number	**AAA18532**
Expression host	*E.coli*
Product Info	N-terminal 6xHis-SUMO-tagged
Storage Buffer	0.2 μm sterile filtered 20 mM Tris-HCl, 0.5 M NaCl, pH 8.0,50% glycerol
Storage	Store at -20℃, for extended storage, conserve at -20℃ or -80℃.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4℃ for up to one week.
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 seems 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 seem 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 7inhibits isoform 1-mediatedapoptosis.
AA sequence	MEEPQSDPSVEPPLSQETFSDLWKLLPENNVLSPLPSQAMDDLMLSPDDIEQWFTEDP GPDEAPRMPEAAPPVAPAPAAPTPAAPAPAPSWPLSSSVPSQKTYQGSYGFRLGFLHS GTAKSVTCTYSPALNKMFCQLAKTCPVQLWVDSTPPPGTRVRAMAIYKQSQHMTEV VRRCPHHERCSDSDGLAPPQHLIRVEGNLRVEYLDDRNTFRHSVVVPYEPPEVGSDCT TIHYNYMCNSSCMGGMNRRPILTIITLEDSSGNLLGRNSFEVRVCACPGRDRRTEEEN LRKKGEPHHELPPGSTKRALPNNTSSSPQPKKKPLDGEYFTLQIRGRERFEMFRELNE ALELKDAQAGKEPGGSRAHSSHLKSKKGQSTSRHKKLMFKTEGPDSD
References	"The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC)." The MGC Project Team Genome Res. 14:2121-2127(2004)

Certificate of Analysis

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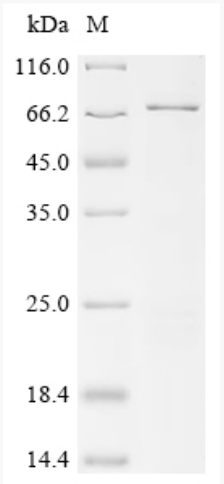
Batch Number	YD05483a7g5		
Nature	Human TP53-(AA 1-393)-**P04637**-Full Length		
Purification	Affinity purified using IMAC		
Recommended Storage	Short term	2 to 8 ℃, one week from the date of receipt	
	Long term	-20 to -80 ℃, six months from the date of receipt	
Form	Liquid		
Date of detection	2023.09.11		
Test Items	**Specifications**		**Results**
Appearance	Clear Solution		pass
Concentration	0.1-5 mg/ml, by the Bradford Method.		0.49 mg/ml
Purity	≥90%, by SDS-PAGE quantitative densitometry by Coomassie Blue Staining.		90%
Molecular Weight	Predicted band size: 56.6 kDa		Observed band size: 68 kDa The reducing (R) protein migrates as 68 kDa in SDS-PAGE may be due to relative charge.

Electrophoretic parameters	(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.	
Aseptic Processing	0.2 μm sterile filtered	
Endotoxin Level	<1.0 EU per 1μg of the protein by the LAL method.	pass
Activity	Not tested	
Conclusion	pass	