Datasheet for ABIN1046803

p53 Protein (His-SUMO Tag)

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Overview

Quantity:	100 µg
Target:	p53 (TP53)
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This p53 protein is labelled with His-SUMO Tag.
Application:	ELISA

Product Details

Sequence:	MEEPQSDPSVE PPLSQETFSD LWKLLPENNV LSPLPSQAMD DLMLSPDDIE QWFTEDPGPD EAPRMPEAAP PVAPAPAAPT PAAPAPAPSW PLSSSVPSQK TYQGSYGFRL GFLHSGTAKS VTCTYSPALN KMFCQLAKTC PVQLWVDSTP PPGTRVRAMA IYKQSQHMTE VVRRCPHHER CSDSDGLAPP QHLIRVEGNL RVEYLDDRNT FRHSVVVPYE PPEVGSDCTT IHYNYMCNSS CMGGMNRRPI LTIITLEDSS GNLLGRNSFE VRVCACPGRD RRTEEENLRK KGEPHHELPP GSTKRALPNN TSSSPQPKKK PLDGEYFTLQ IRGRERFEMF RELNEALELK DAQAGKEPGG SRAHSSHLKS KKGQSTSRHK KLMFKTEGPD SD **The complete sequence will be provided upon request, including tag sequence, target protein sequence and linker sequence**
Specificity:	Full length protein with N-terminal 6xHis-SUMO-Tag
Characteristics:	Please inquire if you are interested in this recombinant protein expressed in E. coli, mammalien cells or by baculovirus infection. Be aware about differences in price and lead time.
Purity:	Greater than 90% as determined by SDS-PAGE.

Target Details

Target:	p53 (TP53)
Alternative Name:	Cellular tumor antigen p53 protein (TP53 Products)
Background:	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. 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.
Molecular Weight:	59.7kDa
UniProt:	P04637
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

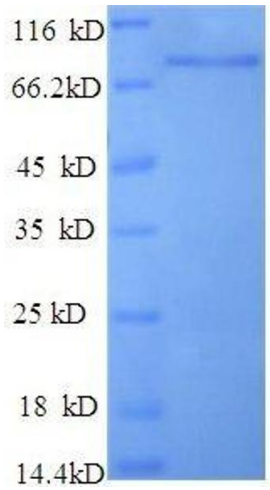
Comment:	The yeast protein expression system is the most economical and efficient eukaryotic system for secretion and intracellular expression. A protein expressed by the mammalian cell system is of very high-quality and close to the natural protein. But the low expression level, the high cost of medium and the culture conditions restrict the promotion of mammalian cell expression systems. The yeast protein expression system serve as a eukaryotic system integrate the advantages of the mammalian cell expression system. A protein expressed by yeast system could be modificated such as glycosylation, acylation, phosphorylation and so on to ensure the native protein conformation. It can be used to produce protein material with high added value that is very close to the natural protein. Our proteins produced by yeast expression system has been used as raw materials for downstream preparation of monoclonal antibodies.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.2-2 mg/mL
Buffer:	10 mM Tris-HCl, 1 mM EDTA, pH 8.0，*50% glycerol*
Handling Advice:	Repeated freezing and thawing is not recommended. Store working aliquots at 4 °C for up to one week
Storage:	-20 °C
Storage Comment:	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.

Publications

Product cited in:	El-Rasikh, Farghali, Abdelrahman, Elgaffary, Abdelmalek, Emam, Ghoneim, Selim: "The implication of autoantibodies in early diagnosis and monitoring of plasmonic photothermal therapy in the treatment of feline mammary carcinoma." in: **Scientific reports**, Vol. 11, Issue 1, pp. 10441, (2021) (PubMed). Lamb, Crawford: "Characterization of the human p53 gene." in: **Molecular and cellular biology**, Vol. 6, Issue 5, pp. 1379-85, (1987) (PubMed). Zakut-Houri, Bienz-Tadmor, Givol, Oren: "Human p53 cellular tumor antigen: cDNA sequence and expression in COS cells." in: **The EMBO journal**, Vol. 4, Issue 5, pp. 1251-5, (1985) (PubMed). Harlow, Williamson, Ralston, Helfman, Adams: "Molecular cloning and in vitro expression of a cDNA clone for human cellular tumor antigen p53." in: **Molecular and cellular biology**, Vol. 5, Issue 7, pp. 1601-10, (1985) (PubMed).



SDS-PAGE

Image 1. Tumor Protein P53 (TP53) (AA 2-393), (partial) protein (GST tag)