Datasheet for ABIN3096200

USP7 Protein (AA 1-1102) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	USP7
Protein Characteristics:	AA 1-1102
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This USP7 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

Product Details

Sequence:	MNHQQQQQQQ KAGEQQLSEP EDMEMEAGDT DDPPRITQNP VINGNVALSD GHNTAEEDME DDTSWRSEAT FQFTVERFSR LSESVLSPPC FVRNLPWKIM VMPRFYPDRP HQKSVGFFLQ CNAESDSTSW SCHAQAVLKI INYRDDEKSF SRRISHLFFH KENDWGFSNF MAWSEVTDPE KGFIDDDKVT FEVFVQADAP HGVAWDSKKH TGYVGLKNQG ATCYMNSLLQ TLFFTNQLRK AVYMMPTEGD DSSKSVPLAL QRVFYELQHS DKPVGTKKLT KSFGWETLDS FMQHDVQELC RVLLDNVENK MKGTCVEGTI PKLFRGKMVS YIQCKEVDYR SDRREDYYDI QLSIKGKKNI FESFVDYVAV EQLDGDNKYD AGEHGLQEAE KGVKFLTLPP VLHLQLMRFM YDPQTDQNIK INDRFEFPEQ LPLDEFLQKT DPKDPANYIL HAVLVHSGDN HGGHYVVYLN PKGDGKWCKF DDDVVSRCTK EEAIEHNYGG HDDDLSVRHC TNAYMLVYIR ESKLSEVLQA VTDHDIPQQL VERLQEEKRI EAQKRKERQE AHLYMQVQIV AEDQFCGHQG NDMYDEEKVK YTVFKVLKNS SLAEFVQSLS QTMGFPQDQI RLWPMQARSN GTKRPAMLDN EADGNKTMIE LSDNENPWTI FLETVDPELA ASGATLPKFD KDHDVMLFLK MYDPKTRSLN YCGHIYTPIS CKIRDLLPVM

	CDRAGFIQDT SLILYEEVKP NLTERIQDYD VSLDKALDEL MDGDIIVFQK DDPENDNSEL PTAKEYFRDL YHRVDVIFCD KTIPNDPGFV VTLSNRMNYF QVAKTVAQRL NTDPMLLQFF KSQGYRDGPG NPLRHNYEGT LRDLLQFFKP RQPKKLYYQQ LKMKITDFEN RRSFKCIWLN SQFREEEITL YPDKHGCVRD LLEECKKAVE LGEKASGKLR LLEIVSYKII GVHQEDELLE CLSPATSRTF RIEEIPLDQV DIDKENEMLV TVAHFHKEVF GTFGIPFLLR IHQGEHFREV MKRIQSLLDI QEKEFEKFKF AIVMMGRHQY INEDEYEVNL KDFEPQPGNM SHPRPWLGLD HFNKAPKRSR YTYLEKAIKI HN **Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human USP7 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified. In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization). When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step

Product Details

	through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	USP7
Alternative Name:	USP7 (USP7 Products)
Background:	Hydrolase that deubiquitinates target proteins such as FOXO4, p53/TP53, MDM2, ERCC6, DNMT1, UHRF1, PTEN and DAXX (PubMed:11923872, PubMed:15053880, PubMed:16964248, PubMed:18716620, PubMed:25283148). Together with DAXX, prevents MDM2 self-ubiquitination and enhances the E3 ligase activity of MDM2 towards p53/TP53, thereby promoting p53/TP53 ubiquitination and proteasomal degradation. Deubiquitinates p53/TP53, preventing degradation of p53/TP53, and enhances p53/TP53-dependent transcription regulation, cell growth repression and apoptosis (PubMed:25283148). Deubiquitinates p53/TP53 and MDM2 and strongly stabilizes p53/TP53 even in the presence of excess MDM2, and also induces p53/TP53-dependent cell growth repression and apoptosis. Deubiquitination of FOXO4 in presence of hydrogen peroxide is not dependent on p53/TP53 and inhibits FOXO4-induced transcriptional activity. In association with DAXX, is involved in the deubiquitination and translocation of PTEN from the nucleus to the cytoplasm, both processes that are counteracted by PML. Involved in cell proliferation during early embryonic development. Involved in transcription-coupled nucleotide excision repair (TC-NER) in response to UV damage: recruited to DNA damage sites following interaction with KIAA1530/UVSSA and promotes deubiquitination of ERCC6, preventing UV-induced degradation of ERCC6. Contributes to the overall stabilization and trans-activation capability of the herpesvirus 1 trans-acting transcriptional protein ICP0/VMW110 during HSV-1 infection. Involved in maintenance of DNA methylation via its interaction with UHRF1 and DNMT1: acts by mediating deubiquitination of UHRF1 and DNMT1, preventing their degradation and promoting DNA methylation by DNMT1 (PubMed:21745816). Exhibits a preference towards 'Lys-48'-linked ubiquitin chains. Increases regulatory T-cells (Treg) suppressive capacity by deubiquitinating and stabilizing the transcription factor FOXP3 which is crucial for Treg cell function (PubMed:23973222).

Target Details

	{ECO:0000269|PubMed:11923872, ECO:0000269|PubMed:14506283, ECO:0000269|PubMed:15053880, ECO:0000269|PubMed:16160161, ECO:0000269|PubMed:16964248, ECO:0000269|PubMed:18590780, ECO:0000269|PubMed:18716620, ECO:0000269|PubMed:20153724, ECO:0000269|PubMed:21745816, ECO:0000269|PubMed:22411829, ECO:0000269|PubMed:22466611, ECO:0000269|PubMed:22466612, ECO:0000269|PubMed:22689415, ECO:0000269|PubMed:23973222, ECO:0000269|PubMed:25283148}.
Molecular Weight:	129.3 kDa Including tag.
UniProt:	Q93009

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process