Datasheet for ABIN3135008

DDB1 Protein (AA 2-1140) (His tag)

1 Image

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Overview

Quantity:	1 mg
Target:	DDB1
Protein Characteristics:	AA 2-1140
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This DDB1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	SYNYVVTAQK PTAVNGCVTG HFTSAEDLNL LIAKNTRLEI YVVTAEGLRP VKEVGMYGKI AVMELFRPKG ESKDLLFILT AKYNACILEY KQSGESIDII TRAHGNVQDR IGRPSETGII GIIDPECRMI GLRLYDGLFK VIPLDRDNKE LKAFNIRLEE LHVIDVKFLY GCQAPTICFV YQDPQGRHVK TYEVSLREKE FNKGPWKQEN VEAEASMVIA VPEPFGGAII IGQESITYHN GDKYLAIAPP IIKQSTIVCH NRVDPNGSRY LLGDMEGRLF MLLLEKEEQM DGTVTLKDLR VELLGETSIA ECLTYLDNGV VFVGSRLGDS QLVKLNVDSN EQGSYVVAME TFTNLGPIVD MCVVDLERQG QGQLVTCSGA FKEGSLRIIR NGIGIHEHAS IDLPGIKGLW PLRSDPGRET DDTLVLSFVG QTRVLMLNGE EVEETELMGF VDDQQTFFCG NVAHQQLIQI TSASVRLVSQ EPKALVSEWK EPQGKNISVA SCNSSQVVVA VGRALYYLQI HPQELRQISH TEMEHEVACL DITPLGDSNG LSPLCAIGLW TDISARILKL PSFELLHKEM LGGEIIPRSI LMTTFESSHY LLCALGDGAL FYFGLNIETG LLSDRKKVTL GTQPTVLRTF RSLSTTNVFA CSDRPTVIYS SNHKLVFSNV NLKEVNYMCP LNSDGYPDSL ALANNSTLTI GTIDEIQKLH IRTVPLYESP RKICYQEVSQ

	CFGVLSSRIE VQDSSGGTTA LRPSASTQAL SSSVSSSKLF SSSTAPHETS FGEEVEVHNL LIIDQHTFEV LHAHQFLQNE YALSLVSCKL GKDPNTYFIV GTAMVYPEEA EPKQGRIVVF QYSDGKLQTV AEKEVKGAVY SMVEFNGKLL ASINSTVRLY EWTTEKELRT ECNHYNNIMA LYLKTKGDFI LVGDLMRSVL LLAYKPMEGN FEEIARDFNP NWMSAVEILD DDNFLGAENA FNLFVCQKDS AATTDEERQH LQEVGLFHLG EFVNVFCHGS LVMQNLGEAS TPTQGSVLFG TVNGMIGLVT SLSESWYNLL LDMQNRLNKV IKSVGKIEHS FWRSFHTERK TEPATGFIDG DLIESFLDIS RPKMQEVVAN LQYDDGSGMK REATADDLIK VVEELTRIH **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. • Mouse Ddb1 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:	DDB1
Alternative Name:	Ddb1 (DDB1 Products)
Background:	Required for DNA repair. Binds to DDB2 to form the UV-damaged DNA-binding protein complex (the UV-DDB complex). The UV-DDB complex may recognize UV-induced DNA damage and recruit proteins of the nucleotide excision repair pathway (the NER pathway) to initiate DNA repair. The UV-DDB complex preferentially binds to cyclobutane pyrimidine dimers (CPD), 6-4 photoproducts (6-4 PP), apurinic sites and short mismatches. Also appears to function as a component of numerous distinct DCX (DDB1-CUL4-X-box) E3 ubiquitin-protein ligase complexes which mediate the ubiquitination and subsequent proteasomal degradation of target proteins. The functional specificity of the DCX E3 ubiquitin-protein ligase complex is determined by the variable substrate recognition component recruited by DDB1. DCX(DDB2) (also known as DDB1-CUL4-ROC1, CUL4-DDB-ROC1 and CUL4-DDB-RBX1) may ubiquitinate histone H2A, histone H3 and histone H4 at sites of UV-induced DNA damage. The ubiquitination of histones may facilitate their removal from the nucleosome and promote subsequent DNA repair. DCX(DDB2) also ubiquitinates XPC, which may enhance DNA-binding by XPC and promote NER. DCX(DTL) plays a role in PCNA-dependent polyubiquitination of CDT1 and MDM2-dependent ubiquitination of TP53 in response to radiation-induced DNA damage and during DNA replication. DCX(ERCC8) (the CSA complex) plays a role in transcription-coupled repair (TCR). May also play a role in ubiquitination of CDKN1B/p27kip when associated with CUL4 and SKP2 (By similarity). {ECO:0000250, ECO:0000269|PubMed:12107171}.
Molecular Weight:	127.7 kDa Including tag.
UniProt:	Q3U1J4
Pathways:	DNA Damage Repair

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:	Protein has not been tested for activity yet. 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)

Images

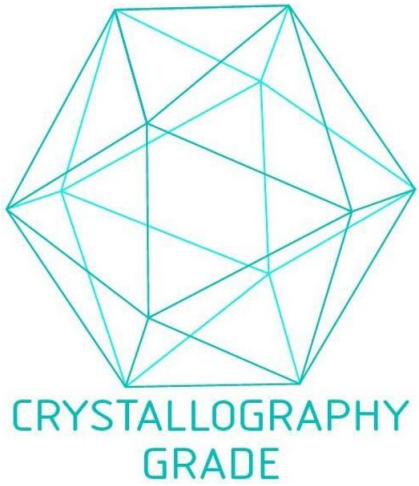

Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process