Datasheet for ABIN3092554

FBXL5 Protein (AA 1-691) (Strep Tag)

Go to Product page

Overview

Quantity:	250 µg
Target:	FBXL5
Protein Characteristics:	AA 1-691
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FBXL5 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MAPFPEEVDV FTAPHWRMKQ LVGLYCDKLS KTNFSNNNDF RALLQSLYAT FKEFKMHEQI ENEYIIGLLQ QRSQTIYNVH SDNKLSEMLS LFEKGLKNVK NEYEQLNYAK QLKERLEAFT RDFLPHMKEE EEVFQPMLME YFTYEELKDI KKKVIAQHCS QKDTAELLRG LSLWNHAEER QKFFKYSVDE KSDKEAEVSE HSTGITHLPP EVMLSIFSYL NPQELCRCSQ VSMKWSQLTK TGSLWKHLYP VHWARGDWYS GPATELDTEP DDEWVKNRKD ESRAFHEWDE DADIDESEES AEESIAISIA QMEKRLLHGL IHNVLPYVGT SVKTLVLAYS SAVSSKMVRQ ILELCPNLEH LDLTQTDISD SAFDSWSWLG CCQSLRHLDL SGCEKITDVA LEKISRALGI LTSHQSGFLK TSTSKITSTA WKNKDITMQS TKQYACLHDL TNKGIGEEID NEHPWTKPVS SENFTSPYVW MLDAEDLADI EDTVEWRHRN VESLCVMETA SNFSCSTSGC FSKDIVGLRT SVCWQQHCAS PAFAYCGHSF CCTGTALRTM SSLPESSAMC RKAARTRLPR GKDLIYFGSE KSDQETGRVL LFLSLSGCYQ ITDHGLRVLT LGGGLPYLEH LNLSGCLTIT GAGLQDLVSA CPSLNDEYFY

	YCDNINGPHA DTASGCQNLQ CGFRACCRSG E **Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**
Characteristics:	Key Benefits: • Made in Germany - from design to production - by highly experienced protein experts. • Protein expressed with ALiCE® and purified in one-step affinity chromatography • These proteins are normally active (enzymatically functional) as our customers have reported (not tested by us and not guaranteed). • 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 try to ensure that you receive soluble 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. Expression System: • ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. • During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein! Concentration: • The concentration of our recombinant proteins is measured using the absorbance at 280nm. • The protein's absorbance will be measured against its specific reference buffer. • We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.
Purification:	One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (AliCE®).

Product Details

Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	FBXL5
Alternative Name:	FBXL5 (FBXL5 Products)
Background:	F-box/LRR-repeat protein 5 (F-box and leucine-rich repeat protein 5) (F-box protein FBL4/FBL5) (p45SKP2-like protein),FUNCTION: Component of some SCF (SKP1-cullin-F-box) protein ligase complex that plays a central role in iron homeostasis by promoting the ubiquitination and subsequent degradation of IREB2/IRP2 (PubMed:19762596, PubMed:19762597). The C-terminal domain of FBXL5 contains a redox-sensitive [2Fe-2S] cluster that, upon oxidation, promotes binding to IRP2 to effect its oxygen-dependent degradation (PubMed:32126207). Under iron deficiency conditions, the N-terminal hemerythrin-like (Hr) region, which contains a diiron metal center, cannot bind iron and undergoes conformational changes that destabilize the FBXL5 protein and cause its ubiquitination and degradation (PubMed:19762596, PubMed:19762597). When intracellular iron levels start rising, the Hr region is stabilized (PubMed:19762596, PubMed:19762597). Additional increases in iron levels facilitate the assembly and incorporation of a redox active [2Fe-2S] cluster in the C-terminal domain (PubMed:32126207). Only when oxygen level is high enough to maintain the cluster in its oxidized state can FBXL5 recruit IRP2 as a substrate for polyubiquination and degradation (PubMed:32126207). Promotes ubiquitination and subsequent degradation of the dynactin complex component DCTN1 (PubMed:17532294). Within the nucleus, promotes the ubiquitination of SNAI1, preventing its interaction with DNA and promoting its degradation (PubMed:24157836). Negatively regulates DNA damage response by mediating the ubiquitin-proteasome degradation of the DNA repair protein NABP2 (PubMed:25249620). {ECO:0000269|PubMed:17532294, ECO:0000269|PubMed:19762596, ECO:0000269|PubMed:19762597, ECO:0000269|PubMed:32126207}.
Molecular Weight:	78.6 kDa
UniProt:	Q9UKA1
Pathways:	Transition Metal Ion Homeostasis

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies

Application Details

	as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.
Comment:	ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from Nicotiana tabacum c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications. During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer. Standard Storage Buffer: PBS pH 7.4, 10 % Glycerol **Might differ depending on protein.**
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months