Datasheet for ABIN3074293

TOM1 Protein (AA 1-492) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	TOM1
Protein Characteristics:	AA 1-492
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This TOM1 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	AliCE®
Sequence:	MDFLLGNPFS SPVGQRIEKA TDGSLQSEDW ALNMEICDII NETEEGPKDA LRAVKKRIVG NKNFHEVMLA LTVLETCVKN CGHRFHVLVA SQDFVESVLV RTILPKNNPP TIVHDKVLNL IQSWADAFRS SPDLTGVVTI YEDLRRKGLE FPMTDLDMLS PIHTPQRTVF NSETQSGQDS VGTDSSQQED SGQHAAPLPA PPILSGDTPI APTPEQIGKL RSELEMVSGN VRVMSEMLTE LVPTQAEPAD LELLQELNRT CRAMQQRVLE LIPQIANEQL TEELLIVNDN LNNVFLRHER FERFRTGQTT KAPSEAEPAA DLIDMGPDPA ATGNLSSQLA GMNLGSSSVR AGLQSLEASG RLEDEFDMFA LTRGSSLADQ RKEVKYEAPQ ATDGLAGALD ARQQSTGAIP VTQACLMEDI EQWLSTDVGN DAEEPKGVTS EEFDKFLEER AKAADRLPNL SSPSAEGPPG PPSGPAPRKK TQEKDDDMLF AL **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®).
Purity:	> 70-80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).
Grade:	custom-made

Target Details

Target:	TOM1
Alternative Name:	TOM1 (TOM1 Products)
Background:	Target of Myb1 membrane trafficking protein (Target of Myb protein 1),FUNCTION: Adapter protein that plays a role in the intracellular membrane trafficking of ubiquitinated proteins, thereby participating in autophagy, ubiquitination-dependent signaling and receptor recycling pathways (PubMed:14563850, PubMed:15047686, PubMed:23023224, PubMed:25588840, PubMed:26320582, PubMed:31371777). Acts as a MYO6/Myosin VI adapter protein that targets MYO6 to endocytic structures (PubMed:23023224). Together with MYO6, required for autophagosomal delivery of endocytic cargo, the maturation of autophagosomes and their fusion with lysosomes (PubMed:23023224). MYO6 links TOM1 with autophagy receptors, such as TAX1BP1, CALCOCO2/NDP52 and OPTN (PubMed:31371777). Binds to polyubiquitinated proteins via its GAT domain (PubMed:14563850). In a complex with TOLLIP, recruits ubiquitin-conjugated proteins onto early endosomes (PubMed:15047686). The Tom1-Tollip complex may regulate endosomal trafficking by linking polyubiquitinated proteins to clathrin (PubMed:14563850, PubMed:15047686). Mediates clathrin recruitment to early endosomes by ZFYVE16 (PubMed:15657082). Modulates binding of TOLLIP to phosphatidylinositol 3-phosphate (PtdIns(3)P) via binding competition, the association with TOLLIP may favor the release of TOLLIP from endosomal membranes, allowing TOLLIP to commit to cargo trafficking (PubMed:26320582). Acts as a phosphatidylinositol 5-phosphate (PtdIns(5)P) effector by binding to PtdIns(5)P, thereby regulating endosomal maturation (PubMed:25588840). PtdIns(5)P-dependent recruitment to signaling endosomes may block endosomal maturation (PubMed:25588840). Also inhibits Toll-like receptor (TLR) signaling and participates in immune receptor recycling (PubMed:15047686, PubMed:26320582). {ECO:0000269|PubMed:14563850, ECO:0000269|PubMed:15047686, ECO:0000269|PubMed:15657082, ECO:0000269|PubMed:23023224, ECO:0000269|PubMed:25588840, ECO:0000269|PubMed:26320582, ECO:0000269|PubMed:31371777}.
Molecular Weight:	53.8 kDa
UniProt:	O60784

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 guarantee though.

Application Details

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