Datasheet for ABIN3080030

FAM111A Protein (AA 1-611) (Strep Tag)

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Overview

Quantity:	250 µg
Target:	FAM111A
Protein Characteristics:	AA 1-611
Origin:	Human
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FAM111A protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

Product Details

Brand:	AliCE®
Sequence:	MSCKKQRSRK HSVNEKCNMK IEHYFSPVSK EQQNNCSTSL MRMESRGDPR ATTNTQAQRF HSPKKNPEDQ TMPQNRTIYV TLKVNHRRNQ DMKLKLTHSE NSSLYMALNT LQAVRKEIET HQGQEMLVRG TEGIKEYINL GMPLSCFPEG GQVVITFSQS KSKQKEDNHI FGRQDKASTE CVKFYIHAIG IGKCKRRIVK CGKLHKKGRK LCVYAFKGET IKDALCKDGR FLSFLENDDW KLIENNDTIL ESTQPVDELE GRYFQVEVEK RMVPSAAASQ NPESEKRNTC VLREQIVAQY PSLKRESEKI IENFKKKMKV KNGETLFELH RTTFGKVTKN SSSIKVVKLL VRLSDSVGYL FWDSATTGYA TCFVFKGLFI LTCRHVIDSI VGDGIEPSKW ATIIGQCVRV TFGYEELKDK ETNYFFVEPW FEIHNEELDY AVLKLKENGQ QVPMELYNGI TPVPLSGLIH IIGHPYGEKK QIDACAVIPQ GQRAKKCQER VQSKKAESPE YVHMYTQRSF QKIVHNPDVI TYDTEFFFGA SGSPVFDSKG SLVAMHAAGF AYTYQNETRS IIEFGSTMES ILLDIKQRHK PWYEEVFVNQ QDVEMMSDED L

Product Details

	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).

Product Details

Grade:	custom-made

Target Details

Target:	FAM111A
Alternative Name:	FAM111A (FAM111A Products)
Background:	Serine protease FAM111A (EC 3.4.21.-),FUNCTION: Single-stranded DNA-binding serine protease that mediates the proteolytic cleavage of covalent DNA-protein cross-links (DPCs) during DNA synthesis, thereby playing a key role in maintaining genomic integrity (PubMed:32165630). DPCs are highly toxic DNA lesions that interfere with essential chromatin transactions, such as replication and transcription, and which are induced by reactive agents, such as UV light or formaldehyde (PubMed:32165630). Protects replication fork from stalling by removing DPCs, such as covalently trapped topoisomerase 1 (TOP1) adducts on DNA lesion, or poly(ADP-ribose) polymerase 1 (PARP1)-DNA complexes trapped by PARP inhibitors (PubMed:32165630). Required for PCNA loading on replication sites (PubMed:24561620). Promotes S-phase entry and DNA synthesis (PubMed:24561620). Acts also as a restriction factor for some viruses including SV40 polyomavirus and vaccinia virus (PubMed:23093934, PubMed:37607234). Mechanistically, affects nuclear barrier function during viral replication by mediating the disruption of the nuclear pore complex (NPC) via its protease activity (PubMed:33369867, PubMed:37607234). In turn, interacts with vaccinia virus DNA-binding protein OPG079 in the cytoplasm and promotes its degradation without the need of its protease activity but through autophagy (PubMed:37607234). {ECO:0000269|PubMed:24561620, ECO:0000269|PubMed:32165630, ECO:0000269|PubMed:37607234}.
Molecular Weight:	70.2 kDa
UniProt:	Q96PZ2

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.
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.

Application Details

	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