Datasheet for ABIN3092232

DPP8 Protein (AA 1-898) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	DPP8
Protein Characteristics:	AA 1-898
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This DPP8 protein is labelled with Strep Tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA

Product Details

Sequence:	MWKRSEQMKI KSGKCNMAAA METEQLGVEI FETADCEENI ESQDRPKLEP FYVERYSWSQ LKKLLADTRK YHGYMMAKAP HDFMFVKRND PDGPHSDRIY YLAMSGENRE NTLFYSEIPK TINRAAVLML SWKPLLDLFQ ATLDYGMYSR EEELLRERKR IGTVGIASYD YHQGSGTFLF QAGSGIYHVK DGGPQGFTQQ PLRPNLVETS CPNIRMDPKL CPADPDWIAF IHSNDIWISN IVTREERRLT YVHNELANME EDARSAGVAT FVLQEEFDRY SGYWWCPKAE TTPSGGKILR ILYEENDESE VEIIHVTSPM LETRRADSFR YPKTGTANPK VTFKMSEIMI DAEGRIIDVI DKELIQPFEI LFEGVEYIAR AGWTPEGKYA WSILLDRSQT RLQIVLISPE LFIPVEDDVM ERQRLIESVP DSVTPLIIYE ETTDIWINIH DIFHVFPQSH EEEIEFIFAS ECKTGFRHLY KITSILKESK YKRSSGGLPA PSDFKCPIKE EIAITSGEWE VLGRHGSNIQ VDEVRRLVYF EGTKDSPLEH HLYVVSYVNP GEVTRLTDRG YSHSCCISQH CDFFISKYSN QKNPHCVSLY KLSSPEDDPT CKTKEFWATI LDSAGPLPDY TPPEIFSFES TTGFTLYGML YKPHDLQPGK KYPTVLFIYG GPQVQLVNNR FKGVKYFRLN TLASLGYVVV VIDNRGSCHR GLKFEGAFKY KMGQIEIDDQ VEGLQYLASR

YDFIDLDRVG IHGWSYGGYL SLMALMQRSD IFRVAIAGAP VTLWIFYDTG YTERYMGHPD QNEQGYYLGS VAMQAEKFPS EPNRLLLLHG FLDENVHFAH TSILLSFLVR AGKPYDLQIY PQERHSIRVP ESGEHYELHL LHYLQENLGS RIAALKVI

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 by multi-step, protein-specific process to ensure correct folding and modification.
- 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 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.

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 in several dilutions and is measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

Product Details

Purification:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): 1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

Target Details

Target:	DPP8
Alternative Name:	DPP8 (DPP8 Products)
Background:	Dipeptidyl peptidase 8 (DP8) (EC 3.4.14.5) (Dipeptidyl peptidase IV-related protein 1) (DPRP-1) (Dipeptidyl peptidase VIII) (DPP VIII) (Prolyl dipeptidase DPP8),FUNCTION: Dipeptidyl peptidase that cleaves off N-terminal dipeptides from proteins having a Pro or Ala residue at position 2 (PubMed:11012666, PubMed:12534281, PubMed:12662155, PubMed:15039077, PubMed:15664838, PubMed:20536396, PubMed:29382749). Acts as a key inhibitor of caspase-1-dependent monocyte and macrophage pyroptosis in resting cells by preventing activation of NLRP1 and CARD8 (PubMed:27820798, PubMed:29967349, PubMed:32796818). Sequesters the cleaved C-terminal part of NLRP1 and CARD8, which respectively constitute the active part of the NLRP1 and CARD8 inflammasomes, in a ternary complex, thereby preventing their oligomerization and activation (PubMed:34019797, PubMed:33731929, PubMed:33731932). The dipeptidyl peptidase activity is required to suppress NLRP1 and CARD8, however, neither NLRP1 nor CARD8 are bona fide substrates of DPP8, suggesting the existence of substrate(s) required for NLRP1 and CARD8 inhibition (By similarity). {ECO:0000250|UniProtKB:Q86TI2, ECO:0000269|PubMed:11012666, ECO:0000269|PubMed:12534281, ECO:0000269|PubMed:12662155, ECO:0000269|PubMed:15039077, ECO:0000269|PubMed:15664838, ECO:0000269|PubMed:20536396, ECO:0000269|PubMed:27820798, ECO:0000269|PubMed:29967349, ECO:0000269|PubMed:32796818, ECO:0000269|PubMed:33731929, ECO:0000269|PubMed:33731932, ECO:0000269|PubMed:34019797, ECO:0000305|PubMed:29382749}.

Target Details

Molecular Weight:	103.4 kDa
UniProt:	Q6V1X1

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. 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. If you have a special request, please contact us.
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