Datasheet for ABIN3123793

CLEC7A Protein (AA 1-244) (Strep Tag)

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Overview

Quantity:	1 mg
Target:	CLEC7A
Protein Characteristics:	AA 1-244
Origin:	Mouse
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This CLEC7A protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA

Product Details

Sequence:

MKYHSHIENL DEDGYTQLDF STQDIHKRPR GSEKGSQAPS SPWRPIAVGL GILCFVVVVV AAVLGALGEY GHNSGRNPEE KDNFLSRNKE NHKPTESSLD EKVAPSKASQ TTGGFSQPCL PNWIMHGKSC YLFSFSGNSW YGSKRHCSQL GAHLLKIDNS KEFEFIESQT SSHRINAFWI GLSRNQSEGP WFWEDGSAFF PNSFQVRNTA PQESLLHNCV WIHGSEVYNQ ICNTSSYSIC EKEL

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.

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)

Target Details

Target:	CLEC7A
Alternative Name:	Clec7a (CLEC7A Products)
Background:	C-type lectin domain family 7 member A (Beta-glucan receptor) (C-type lectin superfamily member 12) (Dendritic cell-associated C-type lectin 1) (DC-associated C-type lectin 1) (Dectin-1) (CD antigen CD369),FUNCTION: Lectin that functions as a pattern recognizing receptor (PRR) specific for beta-1,3-linked and beta-1,6-linked glucans, which constitute cell wall constituents from pathogenic bacteria and fungi (PubMed:11544516, PubMed:17159984, PubMed:15213161). Necessary for the TLR2-mediated inflammatory response and activation of NF-kappa-B: upon beta-glucan binding, recruits SYK via its ITAM motif and promotes a signaling cascade that activates some CARD domain-BCL10-MALT1 (CBM) signalosomes, leading to the activation of NF-kappa-B and MAP kinase p38 (MAPK11, MAPK12, MAPK13 and/or MAPK14) pathways which stimulate expression of genes encoding pro-inflammatory cytokines and chemokines (PubMed:12719479, PubMed:15731053, PubMed:16825490, PubMed:32358020). Enhances cytokine production in macrophages and dendritic cells (PubMed:15845454). Mediates production of reactive oxygen species in the cell (PubMed:12719479, PubMed:15731053, PubMed:16825490). Mediates phagocytosis of C.albicans conidia (PubMed:15729357, PubMed:16825490). Binds T-cells in a way that does not involve their surface glycans and plays a role in T-cell activation (PubMed:10779524). Stimulates T-cell proliferation (PubMed:10779524). Induces phosphorylation of SCIMP after binding beta-glucans (PubMed:27288407). {ECO:0000269|PubMed:10779524, ECO:0000269|PubMed:11544516, ECO:0000269|PubMed:12719479, ECO:0000269|PubMed:15213161, ECO:0000269|PubMed:15729357, ECO:0000269|PubMed:15731053, ECO:0000269|PubMed:15845454, ECO:0000269|PubMed:16825490, ECO:0000269|PubMed:17159984, ECO:0000269|PubMed:27288407, ECO:0000269|PubMed:32358020}.
Molecular Weight:	27.4 kDa
UniProt:	Q6QLQ4
Pathways:	Activation of Innate immune Response

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. 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)

