

Datasheet for ABIN3137154

PYCARD Protein (AA 1-193) (Strep Tag)



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Overview

Quantity:	1 mg
Target:	PYCARD
Protein Characteristics:	AA 1-193
Origin:	Mouse
Source:	Cell-free protein synthesis (CFPS)
Protein Type:	Recombinant
Purification tag / Conjugate:	This PYCARD protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Brand:	ALiCE®
Sequence:	<p>MGRARDAILD ALENLSGDEL KKFKMKLLTV QLREGYGRIP RGALLQMDAI DLTDKLVSY</p> <p>LESYGLELTM TVLRDMGLQE LAEQLQTTKE ESGAVAAAAS VPAQSTARTG HFVDQHRQAL</p> <p>IARVTEVDGV LDALHGSVLT EGQYQAVRAE TTSQDKMRKL FSFVPSWNLTKDCKDLLQALK</p> <p>EIHPLYLMDL EQS</p> <p>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.</p>
Characteristics:	<p>Key Benefits:</p> <ul style="list-style-type: none"> • 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

Product Details

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:	PYCARD
Alternative Name:	Pycard (PYCARD Products)
Background:	Apoptosis-associated speck-like protein containing a CARD (mASC) (PYD and CARD domain-

containing protein),FUNCTION: Functions as a key mediator in apoptosis and inflammation (PubMed:32424362, PubMed:34678144). Promotes caspase-mediated apoptosis involving predominantly caspase-8 and also caspase-9 in a probable cell type-specific manner (By similarity). Involved in activation of the mitochondrial apoptotic pathway, promotes caspase-8-dependent proteolytic maturation of BID independently of FADD in certain cell types and also mediates mitochondrial translocation of BAX and activates BAX-dependent apoptosis coupled to activation of caspase-9, -2 and -3 (By similarity). Involved in innate immune response by acting as an integral adapter in the assembly of various inflammasomes (NLRP2, NLRP3, NLRP6 and AIM2) which recruit and activate caspase-1 leading to processing and secretion of pro-inflammatory cytokines (PubMed:32424362, PubMed:34678144, PubMed:15190255, PubMed:15507117, PubMed:21892172, PubMed:22555457). Caspase-1-dependent inflammation leads to macrophage pyroptosis, a form of cell death (By similarity). The function as activating adapter in different types of inflammasomes is mediated by the pyrin and CARD domains and their homotypic interactions (By similarity). Clustered PYCARD nucleates the formation of caspase-1 filaments through the interaction of their respective CARD domains, acting as a platform for of caspase-1 polymerization (By similarity). In the NLRC4 inflammasomes seems not be required but facilitates the processing of procaspase-1 (By similarity). In cooperation with NOD2 involved in an inflammasome activated by bacterial muramyl dipeptide leading to caspase-1 activation (By similarity). May be involved in RIGI-triggered pro-inflammatory responses and inflammasome activation (By similarity). In collaboration with AIM2 which detects cytosolic double-stranded DNA may also be involved in a caspase-1-independent cell death that involves caspase-8 (PubMed:22555457). In adaptive immunity may be involved in maturation of dendritic cells to stimulate T-cell immunity and in cytoskeletal rearrangements coupled to chemotaxis and antigen uptake may be involved in post-transcriptional regulation of the guanine nucleotide exchange factor DOCK2, the latter function is proposed to involve the nuclear form (By similarity). Also involved in transcriptional activation of cytokines and chemokines independent of the inflammasome, this function may involve AP-1, NF-kappa-B, MAPK and caspase-8 signaling pathways (By similarity). For regulation of NF-kappa-B activating and inhibiting functions have been reported (By similarity). Modulates NF-kappa-B induction at the level of the IKK complex by inhibiting kinase activity of CHUK and IKBK (By similarity). Proposed to compete with RIPK2 for association with CASP1 thereby down-regulating CASP1-mediated RIPK2-dependent NF-kappa-B activation and activating interleukin-1 beta processing (By similarity). Modulates host resistance to DNA virus infection, probably by inducing the cleavage of and inactivating CGAS in presence of cytoplasmic double-stranded DNA (PubMed:28314590). {ECO:0000250|UniProtKB:Q9ULZ3, ECO:0000269|PubMed:15190255, ECO:0000269|PubMed:15507117,

Target Details

ECO:0000269|PubMed:21892172, ECO:0000269|PubMed:22555457,
ECO:0000269|PubMed:28314590, ECO:0000269|PubMed:32424362,
ECO:0000269|PubMed:34678144}.

Molecular Weight: 21.5 kDa

UniProt: [Q9EPB4](#)

Pathways: [Activation of Innate immune Response](#), [Cellular Response to Molecule of Bacterial Origin](#),
[Regulation of Actin Filament Polymerization](#), [Positive Regulation of Endopeptidase Activity](#),
[Activated T Cell Proliferation](#), [Inflammasome](#)

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.

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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.

Handling

Expiry Date: 12 months