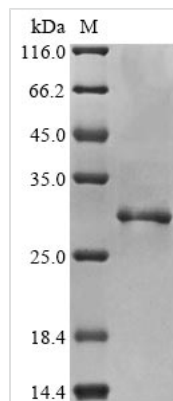




# Recombinant Human Apoptosis-associated speck-like protein containing a CARD (PYCARD)

<b>Product Code</b>	CSB-MP890936HU
<b>Abbreviation</b>	Recombinant Human PYCARD protein
<b>Storage</b>	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
<b>Uniprot No.</b>	Q9ULZ3
<b>Form</b>	Liquid or Lyophilized powder
<b>Storage Buffer</b>	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol.If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
<b>Product Type</b>	Recombinant Protein
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Purity</b>	Greater than 85% as determined by SDS-PAGE.
<b>Sequence</b>	MGRARDAILDALENLTAEELKKFKLKLLSVPLREGYGRIPRGALLSMDALDLTD KLVSFYLETYGAELTANVLRDMGLQEMAGQLQAATHQGSGAAPAGIQAPPQS AAKPGLHFIDQHRAALIARVTNVEWLLDALYGKVLTDQYQAVRAEPTNPSKM RKLFSTPAWNWTCKDLLLLQALRESQSYLVEDLERS
<b>Research Area</b>	Cancer
<b>Source</b>	Mammalian cell
<b>Target Names</b>	PYCARD
<b>Expression Region</b>	1-195aa
<b>Notes</b>	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
<b>Tag Info</b>	N-terminal 10xHis-tagged and C-terminal Myc-tagged
<b>Mol. Weight</b>	28.9 kDa
<b>Protein Length</b>	Full Length
<b>Image</b>	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

Amino acids 1-195 constitute the expression domain of recombinant Human PYCARD. The theoretical molecular weight of the PYCARD protein is 26.7 kDa. The PYCARD protein was expressed in mammalian cell. The PYCARD gene fragment has been modified by fusing the N-terminal 10xHis tag and C-terminal Myc tag, providing convenience in detecting and purifying the recombinant PYCARD protein during the following stages.

Human apoptosis-associated speck-like protein containing a CARD (PYCARD) plays a central role in the assembly of inflammasomes, which are cytoplasmic complexes responsible for activating caspase-1. Upon activation of the inflammasome, PYCARD interacts with procaspase-1 via its CARD domain, facilitating caspase-1 activation. Active caspase-1, in turn, processes pro-IL-1 $\beta$  and pro-IL-18 into their mature and active forms. The release of IL-1 $\beta$  and IL-18 triggers an inflammatory response, recruiting immune cells to the site of infection or injury. This process is crucial for host defense against pathogens but can also contribute to inflammatory diseases when dysregulated. Dysregulation of inflammasome activation, including PYCARD function, has been implicated in various diseases, including autoimmune disorders, neurodegenerative diseases, and inflammatory conditions. Understanding the function of PYCARD provides insights into the molecular mechanisms underlying inflammation and immune responses, with potential implications for therapeutic interventions in diseases associated with aberrant inflammasome activation.

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

## Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.

Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.