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Datasheet for ABIN3134781  
**LY9 Protein (AA 48-453) (His tag)**

### Overview

Quantity:	1 mg
Target:	LY9 (CD229)
Protein Characteristics:	AA 48-453
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This LY9 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS), Crystallization (Crys)

### Product Details

Sequence: KETPPTVISG MLGGSVTFSL NISKDAEIEH IIWNCPPKAL ALV FYK K DIT ILDKGYNGRL  
KVSE DGYS LY MSNLTKSDSG SYHAQINQKN VILTTNKEFT LHIYEKLQKP QIIVESVTPS  
DTDSCTFTLI CTVKGTKDSV QYSWTREDTH LNTYDGSHTL RVSQSVCDPD LPYTCKAWNP  
VSQNSSQPVR IWQFCTGASR RKTAAGKTVV GILGEPVTLP LEFRATRATK NVVWVFNTSV  
ISQERRGAAT ADSRRKPKGS EERRVRTSDQ DQSLKISQLK MEDAGPYHAY VCSEASRDPS  
VRHFTLLVYK RLEKPSVTKS PVHMMNGICE VVLTCSVDGG GNNVTYTWMP LQNKAVMSQG  
KSHLNVSWES GEHLPNFTCT AHNPVSNSSS QFSSGTICSG PERNKR

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
  - Mouse Ly9 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.

## Product Details

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- 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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

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.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

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Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none"><li>1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE.</li><li>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.</li></ol>
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

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## Target Details

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Target:	LY9 (CD229)
Alternative Name:	Ly9 ( <a href="#">CD229 Products</a> )

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## Target Details

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**Background:** Self-ligand receptor of the signaling lymphocytic activation molecule (SLAM) family. SLAM receptors triggered by homo- or heterotypic cell-cell interactions are modulating the activation and differentiation of a wide variety of immune cells and thus are involved in the regulation and interconnection of both innate and adaptive immune response. Activities are controlled by presence or absence of small cytoplasmic adapter proteins, SH2D1A/SAP and/or SH2D1B/EAT-2 (PubMed:19648922). May participate in adhesion reactions between T lymphocytes and accessory cells by homophilic interaction. Promotes T-cell differentiation into a helper T-cell Th17 phenotype leading to increased IL-17 secretion, the costimulatory activity requires SH2D1A. Promotes recruitment of RORC to the IL-17 promoter (By similarity). May be involved in the maintenance of peripheral cell tolerance by serving as a negative regulator of the immune response. May disable autoantibody responses and inhibit IFN-gamma secretion by CD4(+) T-cells (PubMed:23914190). May negatively regulate the size of thymic innate CD8(+) T-cells and the development of invariant natural killer T (iNKT) cells (PubMed:23225888). Can promote natural killer (NK) cell activation (PubMed:19648922).  
{ECO:0000250|UniProtKB:Q9HBG7, ECO:0000269|PubMed:19648922, ECO:0000269|PubMed:23225888, ECO:0000269|PubMed:23914190}.

**Molecular Weight:** 46.1 kDa Including tag.

**UniProt:** [Q01965](#)

**Pathways:** [BCR Signaling](#)

## Application Details

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**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:** Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.

**Restrictions:** For Research Use only

## Handling

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**Format:** Liquid

**Buffer:** 100 mM NaCl, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.

## Handling

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Handling Advice: Avoid repeated freeze-thaw cycles.

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Storage: -80 °C

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Storage Comment: Store at -80°C.

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Expiry Date: Unlimited (if stored properly)