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## JAML Protein (AA 21-281) (His tag)





#### Overview

Quantity:	1 mg
Target:	JAML (AMICA1)
Protein Characteristics:	AA 21-281
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This JAML protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

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Product Details	
Sequence:	QGLPGLTVSS PQLRVHVGES VLMGCVVQRT EEKHVDRVDW LFSKDKDDAS EYVLFYYSNL
	SVPTGRFQNR SHLVGDTFHN DGSLLLQDVQ KADEGIYTCE IRLKNESMVM KKPVELWVLP
	EEPKDLRVRV GDTTQMRCSI QSTEEKRVTK VNWMFSSGSH TEEETVLSYD SNMRSGKFQS
	LGRFRNRVDL TGDISRNDGS IKLQTVKESD QGIYTCSIYV GKLESRKTIV LHVVQDEFQR
	TISPTPPTDK GQQGILNGNQ L
	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 Jaml Protein (raised in E. Coli) purified by multi-step, protein-specific process to
	ensure crystallization grade.
	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 receival 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.

#### Purification:

Two step purification of proteins expressed in bacterial culture:

- 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.
- 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:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility:

0.22 µm filtered

Endotoxin Level:

Endotoxin has not been removed. Please contact us if you require endotoxin removal.

Grade:

Crystallography grade

#### Target Details

Target:	JAML (AMICA1)
Alternative Name:	Jaml (AMICA1 Products)
Background:	Transmembrane protein of the plasma membrane of leukocytes that control their migration
	and activation through interaction with CXADR, a plasma membrane receptor found on

adjacent epithelial and endothelial cells. The interaction between both receptors mediates the activation of gamma-delta T-cells, a subpopulation of T-cells residing in epithelia and involved in tissue homeostasis and repair. Upon epithelial CXADR-binding, JAML induces downstream cell signaling events in gamma-delta T-cells through PI3-kinase and MAP kinases. It results in proliferation and production of cytokines and growth factors by T-cells that in turn stimulate epithelial tissues repair. It also controls the transmigration of leukocytes within epithelial and endothelial tissues through adhesive interactions with epithelial and endothelial CXADR. {ECO:0000269|PubMed:20813954}.

Molecular Weight:

30.6 kDa Including tag.

UniProt:

080UL9

### **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 gurantee
	though.

Comment:

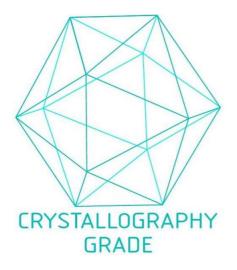
Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you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

Restrictions:

For Research Use only

#### Handling

Format:	Liquid
Buffer:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer.
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