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# IL31RA Protein (AA 20-519) (His tag)







#### Overview

Quantity:	1 mg
Target:	IL31RA
Protein Characteristics:	AA 20-519
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This IL31RA protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

## **Product Details**

Sequence:

ALPAKPENIS CVYYYRKNLT CTWSPGKETS YTOYTVKRTY AFGEKHDNCT TNSSTSENRA SCSFFLPRIT IPDNYTIEVE AENGDGVIKS HMTYWRLENI AKTEPPKIFR VKPVLGIKRM IQIEWIKPEL APVSSDLKYT LRFRTVNSTS WMEVNFAKNR KDKNQTYNLT GLQPFTEYVI ALRCAVKESK FWSDWSQEKM GMTEEEAPCG LELWRVLKPA EADGRRPVRL LWKKARGAPV LEKTLGYNIW YYPESNTNLT ETMNTTNQQL ELHLGGESFW VSMISYNSLG KSPVATLRIP AIQEKSFQCI EVMQACVAED QLVVKWQSSA LDVNTWMIEW FPDVDSEPTT LSWESVSQAT NWTIQQDKLK PFWCYNISVY PMLHDKVGEP YSIQAYAKEG VPSEGPETKV ENIGVKTVTI TWKEIPKSER KGIICNYTIF YQAEGGKGFS KTVNSSILQY GLESLKRKTS YIVQVMASTS

AGGTNGTSIN FKTLSFSVFE

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.
- Human IL31RA Protein (raised in Insect Cells) 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 protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

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 baculovirus infected SF9 insect cells:

- 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:

Protein is endotoxin free.

Grade:

Crystallography grade

## Target Details

Target:	IL31RA
Alternative Name:	IL31RA (IL31RA Products)
Background:	Associates with OSMR to form the interleukin-31 receptor which activates STAT3 and to a
	lower extent STAT1 and STAT5 (PubMed:11877449, PubMed:14504285, PubMed:15627637,
	PubMed:15194700). May function in skin immunity (PubMed:15184896). Mediates IL31-
	induced itch, probably in a manner dependent on cation channels TRPA1 and TRPV1 (By
	similarity). Positively regulates numbers and cycling status of immature subsets of myeloid
	progenitor cells in bone marrow in vivo and enhances myeloid progenitor cell survival in vitro
	(By similarity). {ECO:0000250 UniProtKB:Q8K5B1, ECO:0000269 PubMed:11877449,
	ECO:0000269 PubMed:14504285, ECO:0000269 PubMed:15184896,
	ECO:0000269 PubMed:15194700, ECO:0000269 PubMed:15627637}.
Molecular Weight:	58.0 kDa Including tag.
UniProt:	Q8NI17
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:	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