

Datasheet for ABIN3094749

**Proteoglycan 4 Protein (PRG4) (AA 25-1404) (His tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	Proteoglycan 4 (PRG4)
Protein Characteristics:	AA 25-1404
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Proteoglycan 4 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

## Product Details

Sequence:	QDLSSCAGRC GEGYSRDATC NCDYNCQHYM ECCPDFKRVC TAE LSCKGRC FESFERGREG DCDAQCKKYD KCCPDYESFC AEVHNPTSP SSKKAPPPSG ASQTIKSTTK RSPKPPNKKK TKKVIESEEI TEEHSVSENQ ESSSSSSSSS SSSTIRKIKS SKNSAANREL QKKLKVKDNK KNRTKKKPTP KPPVDEAGS GLDNGDFKVT TPDTSTTQHN KVSTSPKITT AKPINRPSL PPNSDTSKET SLTVNKETTV ETKETTTTNK QTSTDGKEKT TSAKETQSIE KTSAKDLAPT SKVLAKPTPK AETTTKGPAL TTPKEPTPTT PKEPASTTPK EPTPTTIKSA PTTPKEPAPT TTKSAPTTTPK EPAPTTTKEP APTTPKEPAP TTTKEPAPTT TKSAPTTTPKE PAPTTPKKPA PTTPKEPAPT TPKEPTPTTP KEPAPTTKEP APTTPKEPAP TAPKKPAPTT PKEPAPTTTPK EPAPTTTKEP SPTTPKEPAP TTTKSAPTTT KEPAPTTTTS APTTPKEPSP TTTKEPAPTT PKEPAPTTTPK KPAPTTTPKEP APTTPKEPAP TTTKKPAPTT PKEPAPTTTPK ETAPTTPKKL TPTTPEKLAP TTPEKPAPTT PEELAPTTPE EPTPTTPEEP APTTPKAAAP NTPKEPAPTT PKEPAPTTTPK EPAPTTPKET APTTPKGTAP TTLKEPAPTT PKKPAPKELA PTTTKEPTST
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TCDKPAPTTT KGTAPTTTKE PAPTTPKEPA PTTPKGTAAPT TLKEPAPTTT KKPAPKELAP  
TTTTKGPTSTT SDKPAPTTTPK ETAPTTPKEP APTTPKKPAP TTPETPPPTT SEVSTPTTTK  
EPTTIHKSPD ESTPELSAEP TPKALENSPK EPGVPTTKTP AATKPEMTT AKDKTTERDL  
RTTPETTTAA PKMTKETATT TEKTTESKIT ATTTQVTSTT TQDTPPFKIT TLKTTTLAPK  
VTTTKKTITT TEIMNKPEET AKPKDRATNS KATTPKPQKP TKAPKKPTST KKPKTMPVRV  
KPKTTPTPRK MTSTMPELNP TSRIAEAMLQ TTRPNQTPN SKLVEVNP KS EDAGGAEGET  
PHMLLRPHVF MPEVTPDMDY LPRVPNQGII INPMLSDET N ICNGKPDVGL TTLRNGTLVA  
FRGHYFWMLS PFSPSPARR ITEVWGIPSP IDTVFTRCNC EGKTTFFKDS QYWRFTNDIK  
DAGYPKPIFK GFGGLTGQIV AALSTAKYKN WPESVYFFKR GGSIQQYIYK QEPVQKCPGR  
RPALNYPVYG ETTQVRRRRF ERAIGPSQTH TIRIQYSPAR LAYQDKGV LH NEVKVSILWR  
GLPNVVTSAI SLPNIRKPDG YDYA FSKDQ YYNIDVPSRT ARAITTRSGQ T LSKVWYNCP

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

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Human PRG4 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 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:

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## Product Details

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: Proteoglycan 4 (PRG4)

Alternative Name: PRG4 ([PRG4 Products](#))

Background: Plays a role in boundary lubrication within articulating joints. Prevents protein deposition onto cartilage from synovial fluid by controlling adhesion-dependent synovial growth and inhibiting the adhesion of synovial cells to the cartilage surface., Isoform F plays a role as a growth factor acting on the primitive cells of both hematopoietic and endothelial cell lineages.

Molecular Weight: 149.3 kDa Including tag.

UniProt: [Q92954](#)

## 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: 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)

## Images



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process