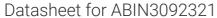
# antibodies .- online.com





## PHD1 Protein (AA 1-407) (His tag)



**Image** 



Go to Product page

#### Overview

Quantity:	1 mg
Target:	PHD1 (EGLN2)
Protein Characteristics:	AA 1-407
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This PHD1 protein is labelled with His tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB), Crystallization (Crys)

#### **Product Details**

#### Sequence:

MDSPCQPQPL SQALPQLPGS SSEPLEPEPG RARMGVESYL PCPLLPSYHC PGVPSEASAG SGTPRATATS TTASPLRDGF GGQDGGELRP LQSEGAAALV TKGCQRLAAQ GARPEAPKRK WAEDGGDAPS PSKRPWARQE NQEAEREGGM SCSCSSGSGE ASAGLMEEAL PSAPERLALD YIVPCMRYYG ICVKDSFLGA ALGGRVLAEV EALKRGGRLR DGQLVSQRAI PPRSIRGDQI AWVEGHEPGC RSIGALMAHV DAVIRHCAGR LGSYVINGRT KAMVACYPGN GLGYVRHVDN PHGDGRCITC IYYLNQNWDV KVHGGLLQIF PEGRPVVANI EPLFDRLLIF WSDRRNPHEV KPAYATRYAI TVWYFDAKER AAAKDKYQLA SGQKGVQVPV SQPPTPT

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 EGLN2 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 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 baculovirus infected SF9 insect cells:

- 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.
- 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: PHD1 (EGLN2)

Alternative Name: EGLN2 (EGLN2 Products)

Target Details	
Background:	Cellular oxygen sensor that catalyzes, under normoxic conditions, the post-translational
	formation of 4-hydroxyproline in hypoxia-inducible factor (HIF) alpha proteins. Hydroxylates a
	specific proline found in each of the oxygen-dependent degradation (ODD) domains (N-terminal,
	NODD, and C-terminal, CODD) of HIF1A. Also hydroxylates HIF2A. Has a preference for the
	CODD site for both HIF1A and HIF2A. Hydroxylated HIFs are then targeted for proteasomal
	degradation via the von Hippel-Lindau ubiquitination complex. Under hypoxic conditions, the
	hydroxylation reaction is attenuated allowing HIFs to escape degradation resulting in their
	translocation to the nucleus, heterodimerization with HIF1B, and increased expression of
	hypoxy-inducible genes. EGLN2 is involved in regulating hypoxia tolerance and apoptosis in
	cardiac and skeletal muscle. Also regulates susceptibility to normoxic oxidative neuronal death.
	Links oxygen sensing to cell cycle and primary cilia formation by hydroxylating the critical
	centrosome component CEP192 which promotes its ubiquitination and subsequent
	proteasomal degradation. Hydroxylates IKBKB, mediating NF-kappaB activation in hypoxic
	conditions. Target proteins are preferentially recognized via a LXXLAP motif.
	{ECO:0000269 PubMed:11595184, ECO:0000269 PubMed:12181324,
	ECO:0000269 PubMed:16509823, ECO:0000269 PubMed:17114296,
	ECO:0000269 PubMed:19339211, ECO:0000269 PubMed:23932902}.
Molecular Weight:	44.6 kDa Including tag.
UniProt:	Q96KS0
Pathways:	Intracellular Steroid Hormone Receptor Signaling Pathway, Cell RedoxHomeostasis
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	

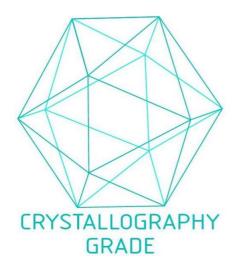
Liquid

Format:

## Handling

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