

Datasheet for ABIN3085898  
**HPGD Protein (AA 1-266) (Strep Tag)**



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## Overview

Quantity:	1 mg
Target:	HPGD
Protein Characteristics:	AA 1-266
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This HPGD protein is labelled with Strep Tag.
Application:	SDS-PAGE (SDS), ELISA, Western Blotting (WB)

## Product Details

Sequence: MHVNGKVALV TGAAQGIGRA FAEALLLKGA KVALVDWNLE AGVQCKAALD EQFEPQKTLF  
IQCDVADQQQ LRDTFRKVVD HFGRLDILVN NAGVNNEKNW EKTLQINLVS VISGTYLGLD  
YMSKQNGGEG GIIINMSSLA GLMPVAQQPV YCASKHGIVG FTRSAALAAN LMNSGVRLNA  
ICPGFVNTAI LESIEKEENM GQYIEYKDHI KDMIKYYGIL DPPLIANGLI TLIEDDALNG AIMKITTSKG  
IHFQDYDTP FQAKTQ

**Sequence without tag. The proposed Strep-Tag is based on experience s with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.**

Characteristics: Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified in one-step affinity chromatography
- These proteins are normally active (enzymatically functional) as our customers have

## Product Details

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- reported (not tested by us and not guaranteed).
- 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 try to ensure that you receive soluble 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.

### Expression System:

- ALiCE®, our Almost Living Cell-Free Expression System is based on a lysate obtained from *Nicotiana tabacum* c.v.. This contains all the protein expression machinery needed to produce even the most difficult-to-express proteins, including those that require post-translational modifications.
- During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

### Concentration:

- The concentration of our recombinant proteins is measured using the absorbance at 280nm.
- The protein's absorbance will be measured against its specific reference buffer.
- We use the Expasy's ProtParam tool to determine the absorption coefficient of each protein.

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Purification: One-step Strep-tag purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®).

Purity: > 80 % as determined by SDS PAGE, Western Blot and analytical SEC (HPLC).

## Target Details

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Target: HPGD

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

Background: 15-hydroxyprostaglandin dehydrogenase [NAD(+)] (15-PGDH) (EC 1.1.1.141)  
(Eicosanoid/docosanoid dehydrogenase [NAD(+)] (EC 1.1.1.-, EC 1.1.1.232) (Prostaglandin

## Target Details

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dehydrogenase 1) (Short chain dehydrogenase/reductase family 36C member 1),FUNCTION: Catalyzes the NAD-dependent dehydrogenation (oxidation) of a broad array of hydroxylated polyunsaturated fatty acids (mainly eicosanoids and docosanoids, including prostaglandins, lipoxins and resolvins), yielding their corresponding keto (oxo) metabolites (PubMed:8086429, PubMed:10837478, PubMed:16828555, PubMed:16757471, PubMed:21916491, PubMed:25586183). Decreases the levels of the pro-proliferative prostaglandins such as prostaglandin E2 (whose activity is increased in cancer because of an increase in the expression of cyclooxygenase 2) and generates oxo-fatty acid products that can profoundly influence cell function by abrogating pro-inflammatory cytokine expression (PubMed:25586183, PubMed:15574495). Converts resolvins E1, D1 and D2 to their oxo products, which represents a mode of resolvins inactivation. Resolvin E1 plays important roles during the resolution phase of acute inflammation, while resolvins D1 and D2 have a unique role in obesity-induced adipose inflammation (PubMed:16757471, PubMed:22844113). {ECO:0000269|PubMed:10837478, ECO:0000269|PubMed:15574495, ECO:0000269|PubMed:16757471, ECO:0000269|PubMed:16828555, ECO:0000269|PubMed:21916491, ECO:0000269|PubMed:22844113, ECO:0000269|PubMed:25586183, ECO:0000269|PubMed:8086429}.

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Molecular Weight: 29.0 kDa

UniProt: [P15428](#)

## 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.

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During lysate production, the cell wall and other cellular components that are not required for protein production are removed, leaving only the protein production machinery and the mitochondria to drive the reaction. During our lysate completion steps, the additional components needed for protein production (amino acids, cofactors, etc.) are added to produce something that functions like a cell, but without the constraints of a living system - all that's needed is the DNA that codes for the desired protein!

## Application Details

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Restrictions: For Research Use only

## Handling

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Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer. If you have a special request, please contact us.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: Unlimited (if stored properly)