

Datasheet for ABIN3092573

## FGD5 Protein (AA 1-1462) (Strep Tag)



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### 1 Image

#### Overview

Quantity:	1 mg
Target:	FGD5
Protein Characteristics:	AA 1-1462
Origin:	Human
Source:	Tobacco (Nicotiana tabacum)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FGD5 protein is labelled with Strep Tag.
Application:	ELISA, Western Blotting (WB), SDS-PAGE (SDS)

#### Product Details

Sequence: MFRGPKPIA PKPRLTAPNE WRASVYLNDS LNKCSNGRLP CVDRGLDEGP RSIPKCSESE  
TDEDYIVVPR VPLREDEPKD EGSVGNKALV SPESSAEEEE EREEGGEACG LEGTGAGEDS  
VAPAAPGAGA LSREGEEGTD LALEDEGEGC ADEPGTLEQV SRSEEEEEKLV QPHRECSLED  
SGPWAGEGVF QSDLLPHIH GEDQEPPDTP GEAEEDDEEG CASTDPAGAD EGSGPDRPTE  
DMGQDAEDTS EEPPEKEELA GVQEAETATD CPEVLEEGCE EATGVTGGEQ VDLSEPPDHE  
KKTNQEVAAA TLEDHAQDES AEESCQIVPF ENDCMEDFVT SLTGSPYEFF PTESTSFCSE  
SCSPLSESAK GLESEQAPKL GLRAEENPMV GALCGQCQSL QGGAAEGPAA PDVVVVLEEE  
ALDDALANPY VMGVGLPGQA APGEGGQAAS DALGGYGSKE ELNCEAEGGL VPADRKNTST  
RVRPHSGKVA GYVPETVPEE TGPEAGSSAP GIGGAAEEVG KTLLSLEGKP LEASRALPAK  
PRAFTLYPRS FSVEGREIPV SVYQEPEGSG LDDHRIKRKE DNLSLSCVIG SSGSFSQRNH  
LPSSGTSTPS SMVDIPPPFD LACITKKPIT KSSPSLLIES DSPDKYKKKK SSFKRFLALT  
FKKKTENKLH VDVNVSSRS SSESSYHGPS RILEVDRRSL SNSPQLKSRT GKLRASESPS

SLIFYRDGKR KGVPPFSRTVS RVESFEDRSR PPFLPLPLTK PRSISFPSAD TSDYENIPAM  
NSDYENIQIP PRRPARAGAF TKLFEDQSRA LSTANENDGY VDMSSFNAFE SKQQSADQDA  
ESAYTEPYKV CPISSAAPKE DLTSDEEQRS SEEEDSASRD PSVTHKVEGQ SRALVIAQEL  
LSSEKAYVEM LQHLNLDFHG AVMRALDDMD HEGRDTLARE ELRQGLSELP AIHDLHQGIL  
EELEERLSNW ESQQKVADV LAREQGFDDH ATHILQFDY LGLLSENCLH SPRLAAAVRE  
FEQSVQGGSQ TAKHRLLRV VQRLFYQVLL TDYLNLCPL SAEYDNTQGA LSLISKVTDR  
ANDSMEQGEN LQKLVHIEHS VRGQDGLLQP GREFLKEGTL MKVTGKNRRP RHLFLMNDVL  
LYTYPQKDGK YRLKNTLAVA NMKVS RPVME KVPYALKIET SESCLMLSAS SCAERDEWYG  
CLSRALPEDY KAQALAAFHH SVEIRERLGV SLGERPPTLV PVTHVMMCMN CGCDFSLTLR  
RHHCHACGKI VCRNCSRNY PLKYLKDRMA KVCDCGCFGEL KKRGRAVPGL MRERPVSMSF  
PLSSPRFSGS AFSSVFQSIN PSTFKKQKKV PSALTEVAAS GEGSAISGYL SRCKRGKRHW  
KKLWVVIK GK VLYTYMASED KVALESMP LL GFTIAPEKEE GSSEVGPIFH LYHKKTLFY S  
FKAEDTNSAQ RWIEAMEDAS VL

**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.**

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### Characteristics:

#### Key Benefits:

- Made in Germany - from design to production - by highly experienced protein experts.
- Protein expressed with ALiCE® and purified by multi-step, protein-specific process to ensure correct folding and modification.
- These proteins are normally active (enzymatically functional) as our customers have 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 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.

#### 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

## Product Details

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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 in several dilutions and is 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:	Two step purification of proteins expressed in Almost Living Cell-Free Expression System (ALiCE®): <ol style="list-style-type: none"><li>1. In a first purification step, the protein is purified from the cleared cell lysate using StrepTag capture material. Eluate fractions are analyzed by SDS-PAGE.</li><li>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.</li></ol>
Purity:	>80 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Endotoxin Level:	Low Endotoxin less than 1 EU/mg (< 0.1 ng/mg)
Grade:	Crystallography grade

## Target Details

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Target:	FGD5
Alternative Name:	FGD5 ( <a href="#">FGD5 Products</a> )
Background:	FYVE, RhoGEF and PH domain-containing protein 5 (Zinc finger FYVE domain-containing protein 23),FUNCTION: Activates CDC42, a member of the Ras-like family of Rho- and Rac proteins, by exchanging bound GDP for free GTP. Mediates VEGF-induced CDC42 activation. May regulate proangiogenic action of VEGF in vascular endothelial cells, including network formation, directional movement and proliferation. May play a role in regulating the actin cytoskeleton and cell shape. {ECO:0000269 PubMed:22328776}.
Molecular Weight:	159.9 kDa
UniProt:	<a href="#">Q6ZNL6</a>

## 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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**Comment:** 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!

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**Restrictions:** For Research Use only

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## Handling

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**Format:** Liquid

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

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**Handling Advice:** Avoid repeated freeze-thaw cycles.

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**Storage:** -80 °C

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**Storage Comment:** Store at -80°C.

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**Expiry Date:** Unlimited (if stored properly)

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