

## Datasheet for ABIN3132977

# Fgr Protein (AA 2-517) (His tag)



## Overview

Quantity:	1 mg
Target:	Fgr (FGR)
Protein Characteristics:	AA 2-517
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Fgr protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

#### **Product Details**

# Sequence:

GCVFCKKLEP ASKEDVGLEG DFRSQTAEER YFPDPTQGRT SSVFPQPTSP AFLNTGNMRS
ISGTGVTIFV ALYDYEARTG DDLTFTKGEK FHILNNTEYD WWEARSLSSG HRGYVPSNYV
APVDSIQAEE WYFGKISRKD AERQLLSSGN PQGAFLIRES ETTKGAYSLS IRDWDQNRGD
HIKHYKIRKL DTGGYYITTR AQFDSIQDLV RHYMEVNDGL CYLLTAPCTT TKPQTLGLAK
DAWEIDRNSI ALERRLGTGC FGDVWLGTWN CSTKVAVKTL KPGTMSPKAF LEEAQIMKLL
RHDKLVQLYA VVSEEPIYIV TEFMCYGSLL DFLKDREGQN LMLPHLVDMA AQVAEGMAYM
ERMNYIHRDL RAANILVGEY LICKIADFGL ARLIEDNEYN PQQGTKFPIK WTAPEAALFG
RFTVKSDVWS FGILLTELIT KGRVPYPGMN NREVLEQVEH GYHMPCPPGC PASLYEVMEQ
AWRLDPEERP TFEYLQSFLE DYFTSTEPQY QPGDQT

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.

- Mouse Fgr 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:

- 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:

Fgr (FGR)

Target Details	
Alternative Name:	Fgr (FGR Products)
Background:	Non-receptor tyrosine-protein kinase that transmits signals from cell surface receptors devoid
	of kinase activity and contributes to the regulation of immune responses, including neutrophil,
	monocyte, macrophage and mast cell functions, cytoskeleton remodeling in response to
	extracellular stimuli, phagocytosis, cell adhesion and migration. Promotes mast cell
	degranulation, release of inflammatory cytokines and IgE-mediated anaphylaxis. Acts
	downstream of receptors that bind the Fc region of immunoglobulins, such as MS4A2/FCER18
	FCER1G and FCGR2. Acts downstream of ITGB1 and ITGB2, and regulates actin cytoskeleton
	reorganization, cell spreading and adhesion. Depending on the context, activates or inhibits
	cellular responses. Functions as negative regulator of ITGB2 signaling, phagocytosis and SYK
	activity in monocytes (PubMed:11672534). Required for normal ITGB1 and ITGB2 signaling,
	normal cell spreading and adhesion in neutrophils and macrophages (PubMed:8666673 and
	PubMed:9687507). Functions as positive regulator of cell migration and regulates cytoskeletor
	reorganization via RAC1 activation (PubMed:15561106). Phosphorylates SYK (in vitro) and
	promotes SYK-dependent activation of AKT1 and MAP kinase signaling (PubMed:21746961).
	Phosphorylates PLD2 in antigen-stimulated mast cells, leading to PLD2 activation and the
	production of the signaling molecules lysophosphatidic acid and diacylglycerol. Promotes
	activation of PIK3R1. Phosphorylates FASLG, and thereby regulates its ubiquitination and
	subsequent internalization. Phosphorylates ABL1. Promotes phosphorylation of CBL, CTTN,
	PIK3R1, PTK2/FAK1, PTK2B/PYK2 and VAV2. Phosphorylates HCLS1 that has already been
	phosphorylated by SYK, but not unphosphorylated HCLS1. {ECO:0000269 PubMed:10662797,
	ECO:0000269 PubMed:11672534, ECO:0000269 PubMed:15561106,
	ECO:0000269 PubMed:19903482, ECO:0000269 PubMed:21746961,
	ECO:0000269 PubMed:8125254, ECO:0000269 PubMed:8666673,
	ECO:0000269 PubMed:9687507}.
Molecular Weight:	59.7 kDa Including tag.
UniProt:	P14234
Pathways:	Sensory Perception of Sound, Stem Cell Maintenance, Regulation of Leukocyte Mediated
	Immunity, Positive Regulation of Immune Effector Process, CXCR4-mediated Signaling Events
	Thromboxane A2 Receptor Signaling
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

# **Application Details**

	though.
Comment:	Protein has not been tested for activity yet. 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)