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## Datasheet for ABIN3130814 LGR4 Protein (AA 805-951) (His tag)





## Overview

Quantity:	1 mg
Target:	LGR4
Protein Characteristics:	AA 805-951
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This LGR4 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)
Product Details	
Sequence:	NPKFKDDWKL LKRRVTRKHG SVSVSISSQG GCGEQDFYYD CGMYSHLQGN LTVCDCCESF
	LLTKPVSCKH LIKSHSCPVL TVASCQRPEA YWSDCGTQSA HSDYADEEDS FVSDSSDQVQ
	ACGRACFYQS RGFPLVRYAY NLPRVRD

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 Lgr4 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

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	RSPO4), associates with phosphorylated LRP6 and frizzled receptors that are activated by extracellular Wnt receptors, triggering the canonical Wnt signaling pathway to increase
Background:	Receptor for R-spondins that potentiates the canonical Wnt signaling pathway and is involved in the formation of various organs. Upon binding to R-spondins (RSP01, RSP02, RSP03 or
Alternative Name:	Lgr4 (LGR4 Products)
Target:	LGR4
Target Details	
Grade:	Crystallography grade
Endotoxin Level:	Protein is endotoxin free.
Sterility:	0.22 µm filtered
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
	<ol> <li>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>
	<ol> <li>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.</li> </ol>
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells:
	the Expasy's protparam tool to determine the absorption coefficient of each protein.
	The concentration of the protein is calculated using its specific absorption coefficient. We use
	specific reference buffer.
	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
	protein experts will do everything to make sure that you receive the protein you ordered.
	folded protein. With no financial risk on your end you can rest assured that our experienced
	When you order this made-to-order protein you will only pay upon receival of the correctly
	experiments or purification optimization).
	custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression
	(other companies might charge you for any performed steps in the expression process for
	In the unlikely event that the protein cannot be expressed or purified we do not charge anythin
	cannot be expressed or purified.

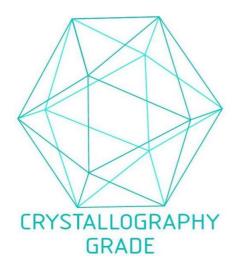
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	expression of target genes. In contrast to classical G-protein coupled receptors, does not
	activate heterotrimeric G-proteins to transduce the signal. Its function as activator of the Wnt
	signaling pathway is required for the development of various organs, including liver, kidney,
	intestine, bone, reproductive tract and eye. May also act as a receptor for norrin (NDP), such
	results however require additional confirmation in vivo. Required during spermatogenesis to
	activate the Wnt signaling pathway in peritubular myoid cells. Required for the maintenance of
	intestinal stem cells and Paneth cell differentiation in postnatal intestinal crypts. Acts as a
	regulator of bone formation and remodeling. Involved in kidney development, required for
	maintaining the ureteric bud in an undifferentiated state. Involved in the development of the
	anterior segment of the eye. Required during erythropoiesis. Also acts as a negative regulator
	of innate immunity by inhibiting TLR2/TLR4 associated pattern-recognition and
	proinflammatory cytokine production. Plays an important role in regulating the circadian
	rhythms of plasma lipids, partially through regulating the rhythmic expression of MTTP
	(PubMed:24353284). {ECO:0000269 PubMed:18955481, ECO:0000269 PubMed:19605502,
	EC0:0000269 PubMed:21508962, EC0:0000269 PubMed:21693646,
	ECO:0000269 PubMed:21727895, ECO:0000269 PubMed:23393138,
	ECO:0000269 PubMed:23444378, ECO:0000269 PubMed:23533175,
	EC0:0000269 PubMed:23589304, EC0:0000269 PubMed:24353284}.
Molecular Weight:	17.5 kDa Including tag.
UniProt:	A2ARI4
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:	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

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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