

Datasheet for ABIN3135192
GRHL3 Protein (AA 1-603) (His tag)[Go to Product page](#)

1 Image

Overview

Quantity:	1 mg
Target:	GRHL3
Protein Characteristics:	AA 1-603
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This GRHL3 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	<p>MSNELDFRSV RLLKNDPVSF QKFPYSNEDE AWKTYLENPL TAATKAMMRV NGDEESVAAL SFLYDYMGMP KEKRILSSST GGRNDQGKKF YHSM DYEPDL APLESPHLM KFLTENVSGS PDYTDQLKKN NLLGLEGVLP TPGKTNTVPP GPSKLEASSM DSYLLPASDI YDNGSLNSLF ESIHGVPPTQ RWQPDSTFKD DPQESLLFPD ILKTSPDPPC PEDYPGLKSD FEYTLGSPKA IHIKAGESPM AYLNKGQFYP VTLRTPAGGK GLALSSSKVK SVVMVVDND KVPVEQLRFW RHWHSRQPTA KQRVIDVADC KENFNTVQHI EEVAYNALSF VWNVNEEAKV FIGVNCLSTD FSSQKGVKGV PLNLQIDTYD CGAGTERLVH RAVCQIKIFC DKGAERKMRD DERKQFRRKV KCPDSSNNAG IKGCLLSGFR GNETTYLRPE TDLETQPVLF IPNLHFSSLQ RPGGVVPSAG HSSSDRLPLK RTCSPFAEEF EPLPSKQAKE DDLQRVLLYV RRETEEVFDA LMLKTPDLKG LRNAISEKYG LPEENICKVY KKCKRGILVN MDNNIIQHYS NHVAFLLDMG ELDGKIQIIL KEL</p> <p>Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.</p>
-----------	--

Product Details

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
 - Mouse Grhl3 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 receipt 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:	GRHL3
Alternative Name:	Grhl3 (GRHL3 Products)
Background:	<p>Transcription factor playing important roles in primary neurulation and in the differentiation of stratified epithelia of both ectodermal and endodermal origin. Binds directly to the consensus DNA sequence 5'-AACCGGTT-3' acting as an activator and repressor on distinct target genes. Essential for epidermal differentiation and barrier formation at the end of embryogenesis with TGM3 as critical direct target (PubMed:21081122, PubMed:20654612, PubMed:25347468). Exhibits functional redundancy with GRHL2 in epidermal morphogenetic events such as eyelid fusion and epidermal wound repair (PubMed:21081122). Despite being dispensable during normal epidermal homeostasis in the adulthood, is again required for barrier repair after immune-mediated epidermal damage, regulates distinct gene batteries in embryonic epidermal differentiation and adult epidermal barrier reformation after injury (PubMed:25347468). Plays unique and cooperative roles with GRHL2 in establishing distinct zones of primary neurulation. Essential for spinal closure, functions cooperatively with GRHL2 in closure 2 (forebrain/midbrain boundary) and posterior neuropore closure (PubMed:14608380, PubMed:20654612). Also required for proper development of the oral periderm (PubMed:24360809). No genetic interaction with GRHL1, no functional cooperativity due to diverse target gene selectivity (PubMed:21081122). {ECO:0000269 PubMed:14608380, ECO:0000269 PubMed:16949565, ECO:0000269 PubMed:20654612, ECO:0000269 PubMed:21081122, ECO:0000269 PubMed:24360809, ECO:0000269 PubMed:25347468}.</p>
Molecular Weight:	68.8 kDa Including tag.
UniProt:	Q5FWH3

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 guarantee 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)

Images



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