

Datasheet for ABIN7554057  
**GRHL2 Protein (AA 1-625) (His tag)**



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## Overview

Quantity:	1 mg
Target:	GRHL2
Protein Characteristics:	AA 1-625
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This GRHL2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

## Product Details

Purpose:	Custom-made recombinat GRHL2 Protein expressed in mammalian cells.
Sequence:	MSQESDNNKR LVALVPMPD PPFNTRRAYT SEDEAWKSYL ENPLTAATKA MMSINGDEDS AAALGLLYDY YKVRPRKRL SVSKASDSQE DQEKRNCLGT SEAQSNLGG ENRVQLKTV PVNLSLNQDH LENSREQYS ISFESSAII PVSGITVVK EDFTPVFMAP PVHYPRGDGE EQRVWIFEQT QYDVPSLATH SAYLKDDQRS TPDSTYSESF KDAATEKFRS ASVGAEEMY DQTSSGTFQY TLEATKSLRQ KQEGPMTYL NKGQFYAITL SETGDNKCFR HPISKVRSV MVFSEDKNR DEQLKYWKYW HSRQHTAKQR VLADIADYKES FNTIGNIEEI AYNVAVSFTWD VNEEAKIFIT VNCLSTDFSS QKGVKGLPLM IQIDTYSYNN RSNKPIHRAY CQIKVFCDKG AERKIRDEER KQNRKKGKQG ASQTQCNSSS DGKLAAPLQ KKS DITYFKT MPDLHSQPVL FIPDVHFANL QRTGQVYYNT DDEREGGSVL VKRMFRPMEE EFGPVPSKQM KEEGTRVLL YVRKETDDVF DALMLKSPTV KGLMEAISEK YGLPVEKIAK LYKSKKGIL VNMDNIIIEH YSNEDTFILN MESMVEGFKV TLMEI <b>Sequence without tag. The proposed Purification-Tag is</b>

**based on experiences 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 to order protein - from design to production - by highly experienced protein experts.
- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- 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.

If you are not interested in a full length protein, please contact us for individual protein fragments.

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.

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### Purity:

> 90 % as determined by Bis-Tris Page, Western Blot

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### Grade:

custom-made

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## Target Details

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### Target:

GRHL2

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### Alternative Name:

GRHL2 ([GRHL2 Products](#))

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### Background:

Grainyhead-like protein 2 homolog (Brother of mammalian grainyhead) (Transcription factor CP2-like 3),FUNCTION: Transcription factor playing an important role in primary neurulation and in epithelial development (PubMed:29309642, PubMed:25152456). Binds directly to the consensus DNA sequence 5'-AACCGGTT-3' acting as an activator and repressor on distinct target genes (By similarity). During embryogenesis, plays unique and cooperative roles with GRHL3 in establishing distinct zones of primary neurulation. Essential for closure 3 (rostral end of the forebrain), functions cooperatively with GRHL3 in closure 2 (forebrain/midbrain boundary) and posterior neuropore closure (By similarity). Regulates epithelial morphogenesis acting as a target gene-associated transcriptional activator of apical junctional complex components. Up-regulates of CLDN3 and CLDN4, as well as of RAB25, which increases the CLDN4 protein and its localization at tight junctions (By similarity). Comprises an essential

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## Target Details

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component of the transcriptional machinery that establishes appropriate expression levels of CLDN4 and CDH1 in different types of epithelia. Exhibits functional redundancy with GRHL3 in epidermal morphogenetic events and epidermal wound repair (By similarity). In lung, forms a regulatory loop with NKX2-1 that coordinates lung epithelial cell morphogenesis and differentiation (By similarity). In keratinocytes, plays a role in telomerase activation during cellular proliferation, regulates TERT expression by binding to TERT promoter region and inhibiting DNA methylation at the 5'-CpG island, possibly by interfering with DNMT1 enzyme activity (PubMed:19015635, PubMed:20938050). In addition, impairs keratinocyte differentiation and epidermal function by inhibiting the expression of genes clustered at the epidermal differentiation complex (EDC) as well as GRHL1 and GRHL3 through epigenetic mechanisms (PubMed:23254293). {ECO:0000250|UniProtKB:Q8K5C0, ECO:0000269|PubMed:19015635, ECO:0000269|PubMed:20938050, ECO:0000269|PubMed:20978075, ECO:0000269|PubMed:23254293, ECO:0000269|PubMed:25152456, ECO:0000269|PubMed:29309642, ECO:0000305|PubMed:12175488}.

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Molecular Weight: 71.1 kDa

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UniProt: [Q6ISB3](#)

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Pathways: [Tube Formation](#)

## 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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Restrictions: For Research Use only

## Handling

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Format: Liquid

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Buffer: The buffer composition is at the discretion of the manufacturer.

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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: 12 months