

Product datasheet for **MR209470**

Grhl1 (NM_001161406) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Grhl1 (NM_001161406) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Grhl1
Synonyms:	LBP-32; MGR; Tcfcp2l2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>MR209470 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACACAGGAGTACGACAACAAAAGGCCCGTGTACTTCTCAGAATGAAGCCCTCTACCCACAGCGGC
 GCTCCTATACCAAGTGAGGATGAAGCCTGGAAGTCGTTCCCTGAAAACCCCTCTCACTGCGGCAACCAAAGC
 GATGATGAGCATCAACGGAGACGAAGACAGCGCGGCTGCGCTGGGCTGCTCTATGACTACTACAAGTCT
 CCCAGAGAGCGCCGGTCAACAGCCGTAAGCCCGAGGGAGAGCACCCAGAGCCAGAGCACAGCAAAAGAA
 ACAGCATACCAAATGTGACGGAGCAGCCCTCATTCTGCTGGAGAAAACAGGGTACAAGTGTGAAAAA
 CGTGCCCTTCAACATCGTCTCCCCATAGCAACCAGCTGGGCATTGATAAGAGAGGCCATCTGACAGCT
 CCCGATACAACAGTCACTGTCTCCATAGCGACCATGCCTACCCACTCCATCAAGACAGAAATCCAGCCGC
 ACGGCTTTGCTGTGGGAATCCCTCCAGCCGTGTACCCTCTGAGCCACCGAACGCGTGGTGGTTTTTGA
 CCGGAGCCTCAGCACTGATCAGTTCAGCTCTGGCACTCAGCCCCCAATGCTCAGCGGAGGACTCCAGAC
 TCCACCTTCTCCGAGACCTTCAAGGAGGCGTTTCAAGGAGTTTTCTTCCCTCGGAACCTCAGCCTTCGGA
 TGCCGGGCATGAATTCAGAGGACTATGTCTTTGACAATGTTTCTGGGAACAATTTGAGTATACCCCTGGA
 AGCCTCCAAGTCACTGCGGCAGAAGCAAGGGGACAGCACTATGACATACTGAATAAAGGCCAGTTCTAT
 CCTGTCACCTTAAAGGAAGGAAGCAGCAATGAAGGGATTACCCACCTATCAGCAAAGTTCGAAGTGTGA
 TCATGGTGGTTTTTGTGAAGACAAAAGCAGAGAAGACCAGCTGAGACTGGAAGTACTGGCACTCCCG
 TCAGCACACGGCCAAACAGAGGTGCATTGACATTGCTGACTACAAAGAAAGTTTCAACACTATCAGCAAC
 ATTGAGGAGATAGCTTATAACGCCATTTCTTCCAGTGGGACATCAATGATGAGGCAAAGTCTTCTATCT
 CTGTGAAGTCTTGGACACAGATTTCTTCTTCTCAGAAGGGTGTGAAGGGCTTGCCTCAACATTCAAAT
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 TGCGACAAAGGAGCTGAAAGGAAAATTGCGGATGAAGAACGAAAACAGAGCAAGAGAAAAGTGTCTGACG
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 CACTCAGCCTGTCTTCTTATTCCGGACGTGCATTTTACCAACCTGCAGCGGGCAGTCACTGTTCTTTCC
 CTCCCCTCTGAAGAACTGGAAGGTGAAGGCTCTGTCTTAAAAGAGGGCCATTGGAACCGAAGTACT
 TTGGAGTCTCTCTCTGCTAAGCTGACTCGGACAGAAGAACCAAGAGAGTGTCTCTATGTCGGAAA
 GGAATCAGAAGAAGTCTTGCAGCCCTGATGCTCAAGACGCCGCTTTTGAAGGGCTGATGGAGGCAATT
 TCAGACAAGTATGATGTCCCCATGACAAGATTGGGAAAATATTTAAGAAGTCAAAAAAGGGATCTCTCG
 TGAACATGGACGACAACATTGTGAAGCACTACTCCAATGAGGACACCTCCAGCTGCAGATAGAGGAAGC
 CGGCGGCTCGTACAAGCTCACCTGACAGAGATT

AG**CGGACCG**ACGCGTACGCGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

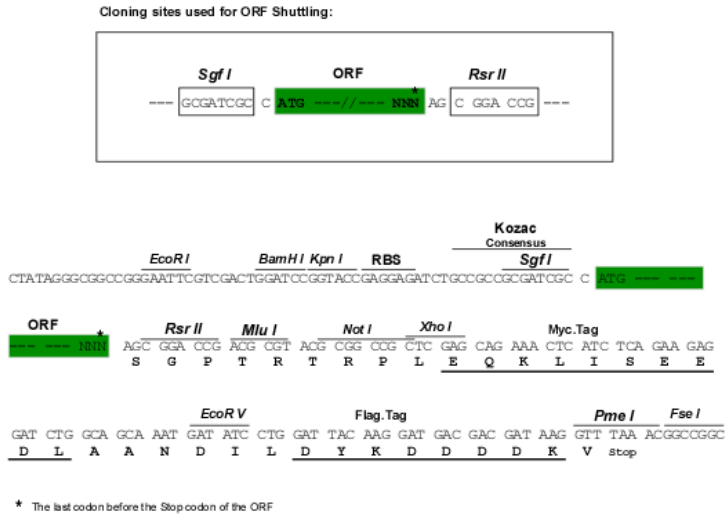
>MR209470 protein sequence
 Red=Cloning site Green=Tags(s)

MTQEYDNKRPLVQLQNEALYPQRRSYTSEDEAWKSFLENPLTAATKAMMSINGDEDSAAALGLLYDYKVK
 PRERRSSAVKPEGEHPEPEHRSKNSIPNVTEQPLISAGENRVQVLKNVPFNIVLPHSNQLGIDKRGHLTA
 PDDTTVTSIATMPTHSIKTEIQPHGFAVGIPPAVYHSEPTERVVVFDRSLSTDQFSSGTQPPNAQRRTPD
 STFSETFKEGVQEVFFPSELRLRMPGMNSEDYVFDNVSGNNFEYTLASKSLRQKQGDSTMTYLKNGQFY
 PVTLKEGSSNEGIHHPISKVRSVIMVVF AEDKSREDQLRHWKYWHSRQHTAKQRCIDIADYKESFNTISN
 IEEIAYNAISFTWDINDEAKVFI SVNCLSTDFSSQKGVKGLPLNIQIDTYSYNNRSNKPVHRAYCQIKVF
 CDKGAERKIRDEERKQSKRKVSDVKVQLLP SHKRTDITVFKPFLDLDTQPVLFI PDVHFTNLQRGSHVLS
 LPSEEELEGESVLRGPFGTEDDFGVPPAKLRTREPKRVLLYVRKESEEVFDALMLKTPSLKGLMEAI
 SDKYDVP HDKIGKIFKCKKGI LVMDDNIVKHYSNEDTFQLQIEEAGGSYKLTLEI

SGP**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-RsrII

Cloning Scheme:



ACCN: NM_001161406

ORF Size: 1857 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001161406.1](#), [NP_001154878.1](#)

RefSeq Size: 3487 bp

RefSeq ORF: 1857 bp

Locus ID: 195733

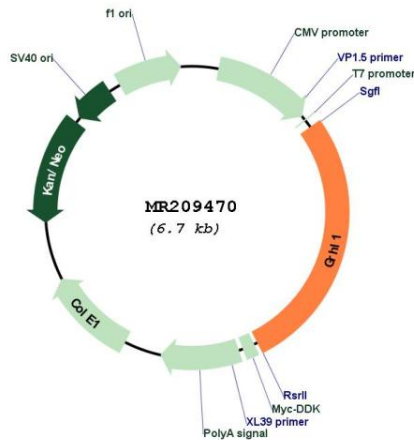
UniProt ID: [Q921D9](#)

Cytogenetics: 12 A1.3

MW: 70.2 kDa

Gene Summary: Transcription factor involved in epithelial development. Binds directly to the consensus DNA sequence 5'-AACCGGT-3' (PubMed:18288204, PubMed:21081122). Important regulator of DSG1 in the context of hair anchorage and epidermal differentiation, participates in the maintenance of the skin barrier (PubMed:18288204, PubMed:24586629). There is no genetic interaction with GRHL3 no genetic interaction with GRHL3, no functional cooperativity due to diverse target gene selectivity during epithelia development (PubMed:21081122). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR209470