

Product datasheet for **MG209470**

Grhl1 (BC013080) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Grhl1 (BC013080) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Grhl1
Synonyms:	LBP-32, MGR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG209470 representing BC013080
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACACAGGAGTACGACAACAAAAGGCCCGTGTCTGACTTTCAGAAATGAAGCCCTCTACCCACAGCGGC
 GCTCCTATACCAGTGAGGATGAAGCCTGGAAGTCGTTCCCTGGAAAACCCCTCACTGCGGCAACCAAAGC
 GATGATGAGCATCAACGAGACGAAGACAGCGCGGCTGCGCTGGGCTGCTCTATGACTACTACAAGGTC
 CCCAGAGAGCGCCGGTCACTCAGCCGTAAGCCCGAGGGAGAGCACCCAGAGCCAGAGCACAGCAAAAGAA
 ACAGCATACCAATGTGACGGAGCAGCCCTCATTCTGCTGGAGAAAACAGGGTACAAGTCTGAAAAA
 CGTGCCCTTCAACATCGTCTCCCCATAGCAACCAGCTGGGCATTGATAAGAGAGGCCATCTGACAGCT
 CCCGATACAACAGTCACTGTCTCCATAGCGACCATGCCTACCCACTCCATCAAGACAGAAATCCAGCCGC
 ACGGCTTTGCTGTGGGAATCCCTCCAGCCGTGTACCCTCTGAGCCACCAGCGGTGGTGGTTTTTGA
 CCGGAGCCTCAGCACTGATCAGTTCAGCTCTGGCACTCAGCCCCCAATGCTCAGCGGAGGACTCCAGAC
 TCCACCTTCTCCGAGACCTCAAGGAGGGCGTTCAAGGAGTTTTCTTCCCTCGGAACCTCAGCCTTCGGA
 TGCCGGGCATGAATTCAGAGGACTATGTCTTTGACAATGTTTCTGGGAACAACCTTGAGTATACCCTGGA
 AGCCTCCAAGTCACTGCGGCAGAAGCAAGGGGACAGCACTATGACATACCTGAATAAAGGCCAGTTCTAT
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 ATTGAGGAGATAGCTTATAACGCCATTTCTTCCAGTGGGACATCAATGATGAGGCAAAGTCTTTCATCT
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 CACTCAGCCTGTCTTCTTCCGACGTGCATTTTACCAACCTGCAGCGGGCAGTCACTGTTCTTTCC
 CTCCCCTCTGAAGAACTGGAAGGTGAAGGCTCTGTCTTGAAGAGGGCCATTGGAACCGAAGATGACT
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 GGAATCAGAAGAAGTCTCGACGCCCTGATGCTCAAGACGCCGTCTTTGAAGGGCCTGATGGAGGCAATT
 TCAGACAAGTATGATGTCCCCATGACAAGATTGGGAAAATATTTAAGAAGTGCAAAAAAGGGATCTCTCG
 TGAACATGGACGACAACATTGTGAAGCACTACTCCAATGAGGACACCTTCCAGCTGCAGATAGAGGAAGC
 CGGCGGCTCGTACAAGCTCACCTGACAGAGATT

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG209470 representing BC013080
 Red=Cloning site Green=Tags(s)

MTQEYDNKRPVVLQNEALYPQRRSYTSEDEAWKSFLENPLTAATKAMMSINGDEDSAAALGLLYDYKVV
 PRERRSSAVKPEGEHPEPEHRSKRNIPNVTEQPLISAGENRVQVLKNVFNIVLPHSNQLGIDKRGHLTA
 PDTTVTVSIATMPHHSIKTEIQPHGFAVGIPPAVYHSEPTERVVVFDRSLSTDQFSSGTQPPNAQRRTPD
 STFSETFKEGVQEVFFPSELRLMPGMNSEDYVFDNVSGNFEYTLKASKSLRQKQGDSTMTYLNKGQFY
 PVTLKEGSSNEGIIHPIKVRVIMVVF AEDKSREDQLRHWKYWHSRQHTAKQRCIDIADYKESFNTISN
 IEEIAYNAISFTWDINDEAKVVISVNCLSTDFSSQKGVKGLPLNIQIDTYSYNNRNSNKPVHRAYCQIKVF
 CDKGAERKIRDEERKQSKRKVSDVKVQLLP SHKRTDITVFKPFLDLDTQPVLFI PDVHFNTLQRGSHVLS
 LPSEEELEGESVLRGPFGTEDDFGVPPPAKLTRTEEPKRVLLYVRKESEEVFDALMLKTPSLKGLMEAI
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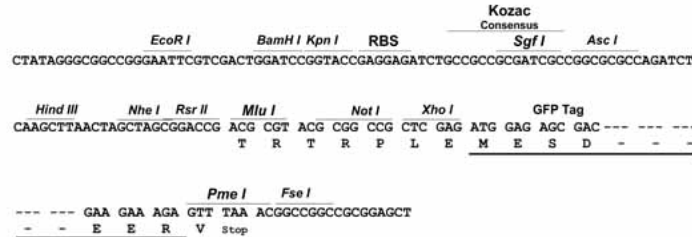
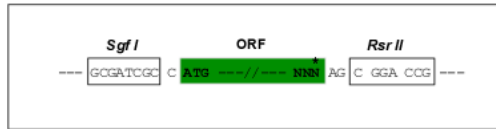
SGP**TRRRLE** - GFP Tag - V

Restriction Sites:

Sgfl-RsrII

Cloning Scheme:

Cloning sites used for ORF Shuttling:


ACCN: BC013080

ORF Size: 1856 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: [BC013080](#), [AAH13080](#)
RefSeq Size: 3414 bp

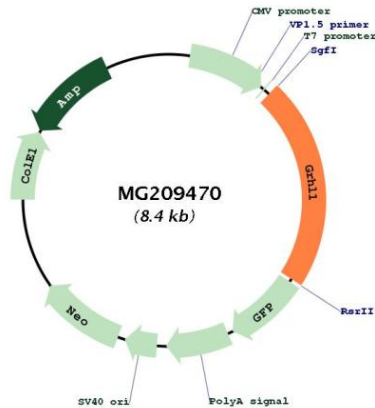
RefSeq ORF: 1856 bp

Locus ID: 195733

Cytogenetics: 12 A1.3

Gene Summary:

Transcription factor involved in epithelial development. Binds directly to the consensus DNA sequence 5'-AACCGGTT-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 MG209470