

## Product datasheet for **RC214498**

### GRHL2 (NM\_024915) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GRHL2 (NM_024915) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GRHL2
Synonyms:	BOM; DFNA28; ECTDS; PPCD4; TFPC2L3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC214498 representing NM\_024915  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCACAAGAGTCGGACAATAATAAAAGACTAGTGGCCTTAGTGCCCATGCCAGTGACCTCCATTCA  
 ATACCCGAAGAGCTACACCAGTGAGGATGAAGCCTGGAAGTCATACTTGAGAAATCCCCTGACAGCAGC  
 CACCAAGGCCATGATGAGCATTAAATGGTATGAGGACAGTGTCTGTCGCCCTCGGCCCTGCTCTATGACTAC  
 TACAAGTTCTCTCGAGACAAGAGGCTGTGTCTGTAAGCAAAGCAAGTGACAGCCAAGAAGACCAGGAGA  
 AAAGAACTGCCTTGGCACCAGTGAAGCCAGAGTAATTTGAGTGGAGGAGAAAACCGAGTGCAAGTCTT  
 AAAGACTGTTCCAGTGAACCTTTCCCTAAATCAAGATCACCTGGAGAATCCAAGCGGGAACAGTACAGC  
 ATCAGCTTCCCGAGAGCTCTGCCATCATCCCGGTGTCCGGAATCACGGTGGTAAAGCTGAAGATTTCA  
 CACCAGTTTTATGGCCCCACCTGTGACTATCCCGGGGAGATGGGAAGAGCAACGAGTGTATCTT  
 TGAACAGACTCAGTATGACGTGCCCTCGCTGGCCACCCACAGCGCCTATCTCAAAGACGACCAGCGCAGC  
 ACTCCGGACAGCACATACAGCGAGAGCTTCAAGGACGCAGCCACAGAGAAATTCGGAGTCTTCAGTTG  
 GGGCTGAGGAGTACATGTATGATCAGACATCAAGTGGCACATTTCACTACACCCTGGAAGCCACCAATC  
 TCTCCGTGAGAAGCAGGGGGAGGGCCCCATGACCTACCTCAACAAAGGACAGTTCTATGCCATAACACTC  
 AGCGAGACCGGAGACAACAAATGCTTCCGACACCCCATCAGCAAAGTCAAGAGTGTGGTATGGTGGTCT  
 TCAGTGAAGACAAAAACAGAGATGAACAGCTCAAATACTGGAAATACTGGCACTCTCGGCAGCATAACGGC  
 GAAGCAGAGGGTCTTGACATTGCCGATTACAAGGAGAGCTTTAATACGATTGAAAACATTGAAGAGATT  
 GCATATAATGCTGTTTCTTTACCTGGGACGTGAATGAAGAGGCGAAGATTTTATCACCCTGAATTGCT  
 TGAGCACAGATTTCTCTCCAAAAAGGGGTGAAAGGACTTCTTTGATGATTGACATGACACATACAG  
 TTATAACAATCGTAGCAATAAACCCATTATAGAGCTTATTGCCAGATCAAGGTCTTCTGTGACAAAGGA  
 GCAGAAAGAAAAATCCGAGATGAAGAGCGGAAGCAGAACAGGAAGAAAGGAAAGGCCAGGCCTCCAAAA  
 CTCAATGCAACAGCTCTCTGATGGGAAGTTGGCTGCCATACCTTTACAGAAGAAGAGTACATCACCTA  
 CTTCAAACCATGCCTGATCTCCACTCACAGCCAGTTCTTTCATACCTGATGTTCACTTTGCAAACCTG  
 CAGAGGACCGGACAGGTGATTACAACACGGATGATGAACGAGAAGGTGGCAGTGTCTTGTAAACGGA  
 TGTTCCGGCCATGGAAGAGGAGTTTGGTCCAGTGCCTTCAAAGCAGATGAAAGAAGAAGGGACAAAGCG  
 AGTGCTCTTGTACGTGAGGAAGGAGACTGACGATGTGTTGATGCATTGATGTTGAAGTCTCCACAGTG  
 AAGGGCCTGATGGAAGCGATATCTGAGAAATATGGGCTGCCCGTGGAGAAGATAGCAAAGCTTTACAAGA  
 AAAGCAAAAAAGGCATCTTGGTGAACATGGATGACAACATCATCGAGCACTACTCGAACGAGGACACCTT  
 CATCTCAACATGGAGAGCATGGTGGAGGGCTTCAAGGTCACGCTCATGGAAATC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC214498 representing NM\_024915  
 Red=Cloning site Green=Tags(s)

MSQESDNNKRLVALVPMSPDPFNTRRAYTSEDEAWKSYLENPLTAATKAMMSINGDEDSAAALGLLYDY  
 YKVPDRKRLLSVSKASDSQEDQEKRNLGTSEAQSNLGGENRVQVLKTPVNLNLNQHLENSKREQYS  
 ISFPESAIIPVSGITVVKAEFTPVMAPPVHYPRGDGEEQRVVI FEQTQYDVPSLATHSAYLKDDQRS  
 TPDSTYSESFKAATEKFRSASVGAEEYMYDQTS SGTFFQYTLKSLRQKQEGPMTYLNKGQFYAITL  
 SETGDNKCFRHPISKVRSVVMVVFSEDKNRDEQLKYWKYWHSRQHTAKQRVLDIADYKESFNITGNIIEI  
 AYNAVSTWVDVNEEAKIFITVNCLSTDFSSQKGVKGLPLMIQIDTYSYNNRNSNKP IHRAYCQIKVFCDKG  
 AERKIRDEERKQNRKKGKQASQTQCNSSSDGKLAAPLQKKS DITYFKTMPDLHSQPVLFIPDVFHANL  
 QRTGQVYYNTDDEREGSVLVKRMFRPMEEEFGPVPSKQMKEEGTRVLLYVRKETDDVFDALMLKSPTV  
 KGLMEAISEKYGLPVEKIAKLYKSKKGI LVMDDNIIIEHYSNEDTFILNEMSMVEGFKVTLMEI

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mg2917\\_a01.zip](https://cdn.origene.com/chromatograms/mg2917_a01.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_024915

ORF Size: 1875 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_024915.4](#)

**RefSeq Size:** 4793 bp

**RefSeq ORF:** 1878 bp

**Locus ID:** 79977

**UniProt ID:** [Q6ISB3](#)

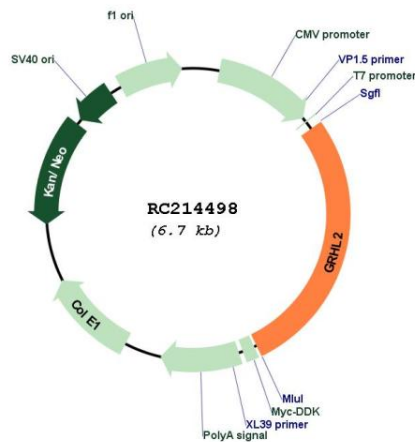
**Cytogenetics:** 8q22.3

**Protein Families:** Transcription Factors

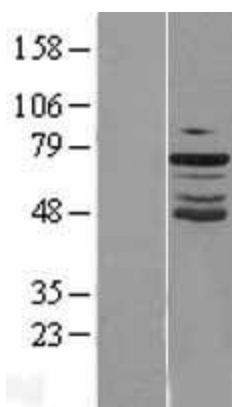
**MW:** 70.9 kDa

**Gene Summary:** The protein encoded by this gene is a transcription factor that can act as a homodimer or as a heterodimer with either GRHL1 or GRHL3. Defects in this gene are a cause of non-syndromic sensorineural deafness autosomal dominant type 28 (DFNA28).[provided by RefSeq, Mar 2009]

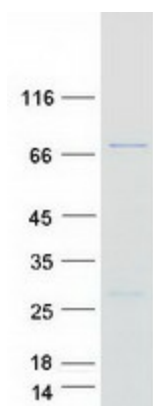
**Product images:**



Circular map for RC214498



Western blot validation of overexpression lysate (Cat# [LY411012]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214498 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified GRHL2 protein (Cat# [TP314498]). The protein was produced from HEK293T cells transfected with GRHL2 cDNA clone (Cat# RC214498) using MegaTran 2.0 (Cat# [TT210002]).