

## Product datasheet for **RG212202**

### **KRT82 (NM\_033033) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KRT82 (NM_033033) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	KRT82
Synonyms:	Hb-2; HB2; KRTHB2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG212202 representing NM\_033033  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCGTACCACTCTTTCCAGCCAGGCTCCAGGTGTGGCAGTCAGAGTTTCAGCTCATACTCGGCTGTCA  
 TGCCCCGATGGTCACCCACTATGCAGTGAGCAAGGGGCCATGCCGGCCCGGGGGTGGTAGGGCCCTCCG  
 AGCTCTGGGCTGCCTTGGCTCACGGAGCCTGTGCAACGTGGGCTTTGGGAGGCCCGGGTAGCCTCCAGG  
 TGTGGAGGTACCCTGCCTGGCTTCCGGTACCGACTGGGAGCCACCTGTGGCCTTCTGCCTGCATCACCC  
 CTGTCACCATCAATGAGAGCCTGCTGGTCCCACTGGCACTGGAGATAGACCCGACTGTGCAGAGGGTAAA  
 GAGGGATGAGAAGGAGCAGATCAAGTGCCTCAACAACCGTTTCGCATCTTTCATCAACAAGTCCGTTTC  
 CTGGAGCAGAAGAACAAGCTGCTGGAGACCAAGTGAACCTTCATGCAGCAGCAGAGGTGCTGCCAGACCA  
 ACATCGAGCCCATCTTCGAGGGCTATATCAGCGCCCTTCGGCGGCAGCTGGACTGTGTGCCGGGACCG  
 CGTGAGGCTAGAGTCAGAGCTCTGCAGCCTCCAGGCTGCACTGGAGGGCTACAAGAAAAAATACGAAGAG  
 GAGCTCTCCCTGCGTCCCTGTGTTGAGAATGAGTTTGTTCCTTGAAGAAGGACGTGGACACAGCCTTCC  
 TGATGAAGGCTGACCTGGAGACCAACGCAGAGGCACTCGTGCAGGAGATCGACTTCTGAAAAGCCTGTA  
 TGAGGAGGAGATCTGCCTGCTCCAGTCTCAGATCTCTGAGACCTCGGTCAATTGTGAAGATGGACAACAGC  
 CGGGAGCTGGACGTGGACGGCATCATCGCTGAGATCAAGGCGCAGTATGACGACATCGCCAGCCGACGCA  
 AAGCCGAAGCAGAGGCCCTGGTACCAGTCCCGGTATGAGGAGCTGAGAGTACAGCTGGGAACCACTGTGA  
 CAACCTCCGCAACCGTAAGAACGAGATCCTGGAATGAATAAACTGATCCAGCGGCTGCAGCAAGAAACC  
 GAGAATGTCAAAGCCAGCGCTGCAAACCTGAGGGTGCCATAGCTGAGGCAGAGCAGAGGGCGAGGCGG  
 CTCTCAATGATGCAAGTGAAGCTGGCAGGGCTGGAGGAGCTCTGCAGAAGGCCAAGCAGGACATGGC  
 CTGCCTGCTCAAGGAATATCAGGAGGTGATGAACCTCAAGCTGGCCTGGACATCGAGATCGCCACCTAC  
 AGGCGCCTGCTGGAGGTTGAAGAGCACAGGCTGTGCGAAGGCATCGGGCCGTGAATATCTCAGTGAACA  
 GCTCAAAGGCGCCTTCTGTACGAGCCATGTGGGGTCAAGCAGCCTGTCTCAGCACTGGCGTCTCAG  
 GAGCAATGGGGGCTGCAGCATCGTGGGCACTGGTGAACCTATGTCCCCTGCGAGCCCCAGGGGCTACTG  
 AGCTGTGGGAGCGGGCGGAAATCCAGCATGACGCTAGGAGCTGGGGCAGCTCCCCAGCCACAAGCAT

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG212202 representing NM\_033033  
 Red=Cloning site Green=Tags(s)

MSYHSFQPGSRCGSQSFSSYSVMPRMVTHYAVSKGPCRPGGRGLRALGCLGSRSLCNVGFGRPRVSR  
 CGGTLPFGYRLGATCGPSACITPVTINESLLVPLALEIDPTVQVRVCRDEKEQIKLNNRFASFINKVRF  
 LEQKNLLETKNWFMQQQRCCQTNIEPIFEGYISALRRQLDCVSGDRVRLSELSLQAALLEGYKKKYEE  
 ELSLRPCVENEFVALKKDVRTAFMKADLETNAEALVQIDFLKSLYEEEEICLLQSQISETSVIVKMDNS  
 RELDVDGIIAEIKAQYDDIASRSKAEAEAWYQCRYEELRVTAGNHCDNLRNRKNEILEMNLQRLQOET  
 ENVKAQRCKLEGAIAEAEQQGEAALNDAKCLAGLEEALQKAKQDMACLLKEYQEVMSKGLDIEIATY  
 RRLLEGEHRLCEGIGPVNIVSSSKGAFLYPCGVSTPVLSTGVLRNSGGCSIVGTGELYVPEPQGLL  
 SCGSGRKSMTLGAGSSPSHKH

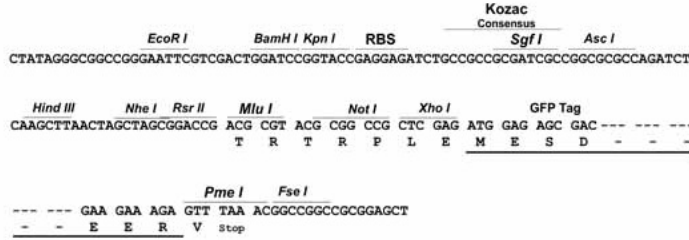
**TRTRPLE** - GFP Tag - V

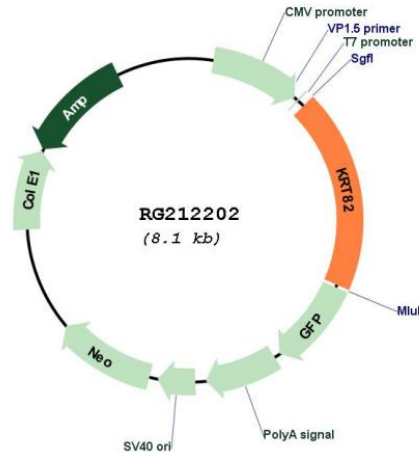
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



**Plasmid Map:**


**ACCN:** NM\_033033

**ORF Size:** 1539 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\\_033033.4](#)

**RefSeq Size:** 2681 bp

**RefSeq ORF:** 1542 bp

**Locus ID:** 3888

**UniProt ID:** [Q9NSB4](#)

**Cytogenetics:** 12q13.13

**Gene Summary:** The protein encoded by this gene is a member of the keratin gene family. As a type II hair keratin, it is a basic protein which heterodimerizes with type I keratins to form hair and nails. The type II hair keratins are clustered in a region of chromosome 12q13 and are grouped into two distinct subfamilies based on structure similarity. One subfamily, consisting of KRTHB1, KRTHB3, and KRTHB6, is highly related. The other less-related subfamily includes KRTHB2, KRTHB4, and KRTHB5. All hair keratins are expressed in the hair follicle; this keratin appears to be a hair cuticle-specific keratin. [provided by RefSeq, Jul 2008]