

## Product datasheet for **SC303165**

### **KRT81 (NM\_002281) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	KRT81 (NM_002281) Human Untagged Clone
Tag:	Tag Free
Symbol:	KRT81
Synonyms:	ghHkb1; Hb-1; HB1; hHAKB2-1; K81; KRTHB1; MLN137
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**Fully Sequenced ORF:** >SC303165 representing NM\_002281.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGACCTGCGGATCAGGATTTGGTGGCGCGCCTTCAGCTGCATCTCGGCCTGCGGGCCGCGGCCCGCC
CGCTGCTGCATCACCGCCGCCCTACCGTGGCATCTCCTGCTACCGCGCCTCACCGGGGCTTCGGC
AGCCACAGCGTGTGCGGAGGCTTTCGGGCGGCTCCTGCGGACGCAGCTTCGGCTACCGCTCCGGGGC
GTGTGCGGGCCAGTCCCCATGCATCACCCAGTGTGCGTCAACGAGAGCCTCCTCACGCCCTCAAC
CTGGAGATCGACCCCAACCGCGCAGTGCCTGAAGCAGGAGGAGAAGGAGCAGATCAAGTCCCTCAACAGC
AGGTTTCGCGCCTTCATCGACAAGGTGCGCTTCTGGAGCAGCAGAACTGCTGGAGACAAAGCTG
CAGTTCTACCAGAACCGGAGTGTGCCAGAGCAACCTGGAGCCCTGTTTGGAGGCTACATCGAGACT
CTGCGGGGGAGGCCGAGTGCCTGGAGGCCGACAGCGGGAGGCTGGCCTCAGAGCTTAACCACGTGCAG
GAGGTGCTGGAGGCTACAAGAAGAAGTATGAGGAGGAGTTTCTCTGAGAGCAACAGCTGAGAACGAG
TTTGTGGCTCTGAAGAAGGATGTGACTGCGCCTACCTCCGAAGTCAGACCTGGAGGCCAACGTGGAG
GCCTGATCCAGGAGATCGACTTCTGAGGCGGCTGTATGAGGAGGAGATCCTCATTCTCCAGTCCGAC
ATCTCAGACACCTCCGTGGTGTCAAGCTGGACAACAGCCGGGACCTGAACATGGACTGCATCATTGCC
GAGATTAAGGCACAGTATGACGACATTGTACCCCGCAGCCGGGCCGAGGCCGAGTCTGGTACCGCAGC
AAGTGTGAGGAGATGAAGGCCACGGTATCAGGCACGGGGAGACCCTGCGCCGCACCAAGGAGGAGATC
AATGAGCTGAACCGCATGATCCAAGGCTGACGGCCGAGGTGGAGAATGCCAAGTCCAGAACTCCAAG
CTGGAGGCCGCGGTGGCCAGTCTGAGCAGCAGGTGAGGCGCCCTCAGTATGCCCGTCAAGCTG
GCCGAGCTGGAGGGCCCTGCAGAAGGCCAAGCAGGACATGGCCTGCCTGATCAGGAGTACCAGGAG
GTGATGAACCTCAAGCTGGCCTGGACATCGAGATCGCCACCTACAGGCGCTGCTGGAGGGCAGGAG
CAGAGGCTATGTGAAGGCATTGGGGCTGTGAATGTCTGTGTGTCAGCAGCTCCCGGGCGGGTCTGTGTC
GGGACCTCTGCGTGTGAGGCTCCCGGCCAGTACTGGCAGTGTCTGCAGCGCTCCGTGCAACGGGAAC
GTGGCGGTGAGCACCGGCCTGTGTGCGCCTGCGGCCAATTGAACACCACCTGCGGAGGGGGTCTCTGC
GGCGTGGGCTCCTGTGATCAGCTCCCTGGGTGTGGGTCTTGCAGCAGAGCTGCCGAAATGTTAG

ACCGGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
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**Restriction Sites:** SgfI-MluI

**ACCN:** NM\_002281

**Insert Size:** 1518 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_002281.3](#)

**RefSeq Size:** 1926 bp

**RefSeq ORF:** 1518 bp

**Locus ID:** 3887

**UniProt ID:** [Q14533](#)

**Cytogenetics:** 12q13.13

**MW:** 54.9 kDa

**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 hair keratin, as well as KRTHB3 and KRTHB6, is found primarily in the hair cortex. Mutations in this gene and KRTHB6 have been observed in patients with a rare dominant hair disease, monilethrix. [provided by RefSeq, Jul 2008]