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Product datasheet for RC220726

KRT81 (NM_002281) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KRT81 (NM_002281) Human Tagged ORF Clone
Tag:	Myc-DDK
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)

View online »

ORF Nucleotide Sequence:

>RC220726 representing NM_002281
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACCTGCGGATCAGGATTTGGTGGGCGCGCCTTCAGCTGCATCTCGGCCTGCGGGCCGCGCCCCGGCC
GCTGCTGCATCACCGCCGCCCCCTACCGTGGCATCTCCTGCTACCGCGGCCTCACCGGGGGCTTCGGCAG
CCACAGCGTGTGCGGAGGCTTTCGGGCCGGCTCCTGCGGACGCAGCTTCGGCTACCGCTCCGGGGGCGTG
TGCGGGCCCAGTCCCCCATGCATCACCACCGTGTCGGTCAACGAGAGCCTCCTCACGCCCCTCAACCTGG
AGATCGACCCCAACGCGCAGTGCGTGAAGCAGGAGGAGAAGGAGCAGATCAAGTCCCTCAACAGCAGGTT
CGCGGCCTTCATCGACAAGGTGCGCTTCCTGGAGCAGCAGAACAAACTGCTGGAGACAAAGCTGCAGTTC
TACCAGAACCGCGAGTGTTGCCAGAGCAACCTGGAGCCCCTGTTTGAGGGCTACATCGAGACTCTGCGGC
GGGAGGCCGAGTGCGTGGAGGCCGACAGCGGGAGGCTGGCCTCAGAGCTTAACCACGTGCAGGAGGTGCT
GGAGGGCTACAAGAAGAAGTATGAGGAGGAGGTTTCTCTGAGAGCAACAGCTGAGAACGAGTTTGTGGCT
CTGAAGAAGGATGTGGACTGCGCCTACCTCCGCAAGTCAGACCTGGAGGCCAACGTGGAGGCCCTGATCC
AGGAGATCGACTTCCTGAGGCGGCTGTATGAGGAGGAGATCCGCATTCTCCAGTCGCACATCTCAGACAC
CTCCGTGGTTGTCAAGCTGGACAACAGCCGGGACCTGAACATGGACTGCATCATTGCCGAGATTAAGGCA
CAGTATGACGACATTGTCACCCGCAGCCGGGCCGAGGCCGAGTCCTGGTACCGCAGCAAGTGTGAGGAGA
TGAAGGCCACGGTGATCAGGCACGGGGAGACCCTGCGCCGCACCAAGGAGGAGATCAATGAGCTGAACCG
CATGATCCAAAGGCTGACGGCCGAGGTGGAGAATGCCAAGTGCCAGAACTCCAAGCTGGAGGCCGCGGTG
GCTCAGTCTGAGCAGCAGGGTGAGGCAGCCCTCAGTGATGCCCGCTGCAAGCTGGCCGAGCTGGAGGGCG
CCCTGCAGAAGGCCAAGCAGGACATGGCCTGCCTGATCAGGGAGTACCAGGAGGTGATGAACTCCAAGCT
GGGCCTGGACATCGAGATCGCCACCTACAGGCGCCTGCTGGAGGGCGAGGAGCAGAGGCTATGTGAAGGC
ATTGGGGCTGTGAATGTCTGTGTCAGCAGCTCCCGGGGCGGGGTCGTGTGCGGGGACCTCTGCGTGTCAG
GCTCCCGGCCAGTGACTGGCAGTGTCTGCAGCGCTCCGTGCAACGGGAACGTGGCGGTGAGCACCGGCCT
GTGTGCGCCCTGCGGCCAATTGAACACCACCTGCGGAGGGGGTTCCTGCGGCGTGGGCTCCTGTGGTATC
AGCTCCCTGGGTGTGGGGTCTTGCGGCAGCAGCTGCCGGAAATGT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220726 representing NM_002281
Red=Cloning site Green=Tags(s)

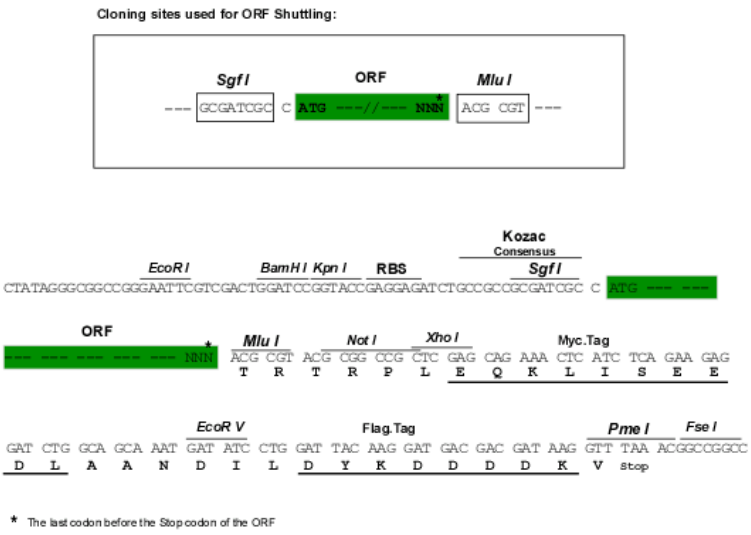
MTCGSGFGGRAFSCISACGPRPGRCCITAAPYRGISCYRGLTGGFGSHSVCGGFRAGSCGRSFGYRSGGV
CGPSPPCITTVSVNESLLTPLNLEIDPNAQCVKQEEKEQIKSLNSRFAAFIDKVRFLEQQNKLLETKLQF
YQNRECCQSNLEPLFEGYIETLRREAECVEADSGRLASELNHVQEVLEGYKKKYEEEVSLRATAENEFVA
LKKDVDCAYLRKSDLEANVEALIQEIDFLRRLYEEEIRILQSHISDTSVVVKLDNSRDLNMDCIIAEIKA
QYDDIVTRSRAEAESWYRSKCEEMKATVIRHGETLRRTKEEINELNRMIQRLTAEVENAKCQNSKLEAAV
AQSEQQGEAALSDARCKLAELEGALQKAKQDMACLIREYQEVMNSKLGLDIEIATYRRLLEGEEQRLCEG
IGAVNVCVSSSRGGVVCGDLCVSGSRPVTGSVCSAPCNGNVAVSTGLCAPCGQLNTTCGGGSCGVGSCGI
SSLGVGSCGSSCRKC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8041_h04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002281

ORF Size: 1515 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 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.

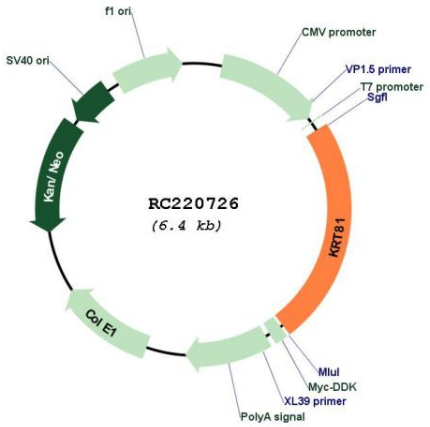
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

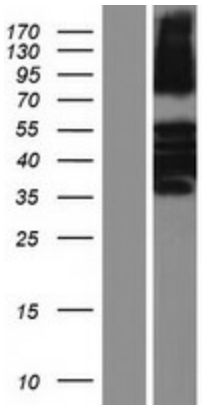
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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_002281.2, NP_002272.1
RefSeq Size:	1925 bp
RefSeq ORF:	1518 bp
Locus ID:	3887
UniProt ID:	Q14533
Cytogenetics:	12q13.13
MW:	54.7 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]

Product images:



Circular map for RC220726



Western blot validation of overexpression lysate (Cat# [LY419433]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220726 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).