

Product datasheet for **RC206870**

Cytokeratin 5 (KRT5) (NM_000424) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cytokeratin 5 (KRT5) (NM_000424) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cytokeratin 5
Synonyms:	CK5; DDD; DDD1; EBS2; K5; KRT5A
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC206870 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTCTCGCCAGTCAAGTGTCTCTCCGAGCGGGGAGTCGTAGCTTCAGCACCGCCTCTGCCATCA
 CCCCGTCTGTCTCCCGCACAGCTTACCTCCGTGTCCCGGTCCGGGGTGGCGGTGGTGGTTCGG
 CAGGGTACGCTTTCGGGTGCTTGTGGAGTGGGTGGCTATGGCAGCCGGAGCCTCTACAACCTGGGGGC
 TCCAAGAGGATATCCATCAGCACTAGTGGTGGCAGCTTCAAGAACCGTTTGGTGTGGTCTGGAGGCG
 GCTATGGCTTTGGAGGTGGTCCGGTAGTGGATTTGGTTTCGGCGGTGGAGCTGGTGGTGGCTTTGGCT
 TGGTGGCGGAGCTGGCTTTGGAGGTGGCTTCGGTGGCCCTGGCTTTCCTGTCTGCCCTCTGGAGGTATC
 CAAGAGGTCACTGTCAACCAGAGTCTCCTGACTCCCCTCAACCTGCAAATCGACCCAGCATCCAGAGGG
 TGAGGACCGAGGAGCGCAGCAGATCAAGACCCCAACAATAAGTTTGCCTCCTTCATCGACAAGGTGCG
 GTTCTTGAGCAGCAGAACAAGTTCTGGACACCAAGTGGACCCTGCTGCAGGAGCAGGGCACCAAGACC
 GTGAGGCAGAACCTGGAGCCGTTGTTCCGAGCAGTACATCAACAACCTCAGGAGGCAGCTGGACAGCATCG
 TGGGGAAACGGGGCCGCCTGGACTCAGAGCTAAGAAACATGCAGGACCTGGTGGAAAGACTTCAAGAACAA
 GTATGAGGATGAAATCAACAAGCGTACCACTGCTGAGAATGAGTTTGTGATGCTGAAGAAGGATGTAGAT
 GCTGCCTACATGAACAAGGTGGAGCTGGAGGCCAAGGTTGATGCACTGATGGATGAGATTAACCTTCATGA
 AGATGTTCTTTGATGCGGAGCTGTCCCAGATGCAGACGCATGTCTCTGACACCTCAGTGGTCTCTCCAT
 GGACAACAACCGCAACCTGGACCTGGATAGCATCATCGCTGAGGTCAAGGCCAGTATGAGGAGATTGCC
 AACCGCAGCCGGACCGAAGCCGAGTCTGGTATCAGACCAAGTATGAGGAGCTGCAGCAGCAGCTGGCC
 GGCATGGCGATGACCTCCGCAACACCAAGCATGAGATCTCTGAGATGAACCGGATGATCCAGAGGCTGAG
 AGCCGAGATTGACAATGTCAAGAAACAGTGCGCCAATCTGCAGAACGCCATTGCGGATGCCGAGCAGCT
 GGGGAGCTGGCCCTCAAGGATGCCAGGAACAAGCTGGCCGAGCTGGAGGAGGCCCTGCAGAAGGCCAAGC
 AGGACATGGCCCGGCTGCTGCGTGAAGTACCAGGAGCTCATGAACACCAAGCTGGCCCTGGACGTGGAGAT
 CGCCACTTACCGCAAGCTGCTGGAGGGCGAGGAATGCAGACTCAGTGGAGAAGGAGTTGGACCACTCAAC
 ATCTCTGTTGTCACAAGCAGTGTTCCTCTGGATATGGCAGTGGCAGTGGCTATGGCGGTGGCCCTCGGTG
 GAGGTCTTGGCGGCGCCCTCGGTGGAGGTCTTGGCGGAGTGGCAGTGGAAAGCTACTACTCCAGCAGCAG
 TGGGGGTGTCGGCTAAGTGGTGGGCTCAGTGTGGGGGCTCTGGCTTCAAGCAGTGGCCGAGGG
 CTGGGGTGGGCTTTGGCAGTGGCGGGGTAGCAGCTCCAGCGTCAAATTTGCTCCACCACCTCTCTCT
 CCCGGAAGAGCTTCAAGAGC

ACGCGTACGCGGCGGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206870 protein sequence
 Red=Cloning site Green=Tags(s)

MSRQSSVSFRSGGSRFSTASAITPSVSRSTFTSVSRSGGGGGGFRVSLAGACGVGGYGSRSLYNLGG
 SKRISISTSGGSFRNRFAGAGGGYFGGGAGSGFGGGAGGGFGLGGGAGFGGGFPGPFPVCPGGI
 QEVTVNQSLLTPLNLQIDPSIQVRTEEREQIKTLNKFASFIDKVRFLQKQNKVLDTKWTLLEQGTGT
 VRQNLPLFEQYINNLRRQLDSIVGERGRLDSELRNMQDLVEDFNKYEDEINKRRTTAENEFVMLKKD
 AAYMNKVELEAKVDALMDEINFMKMFFDAELSQMQTHVSDTSVVL SMDNNRNLDSLIIAEVKAQYEEIA
 NRSRTEAESWYQTKYEELQQTAGRHGDDL RNTKHEISEMNRMIQRLRAEIDNVKKQCANLQNAIADAEQR
 GELALKDARNKLAEL EELQKAKQDMARLLREYQELMNTKLALDVEIATYRKLLEGE ECRLSGEGVGPVN
 ISVVTSSVSSGYSGSGYGGGLGGGLGGGLAGGSGSYSSSSGGVGLSGGLSVGGSGFSASSGRG
 LGVFGSGGGSSSVKVFVSTSSSRKSFKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6067_f06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000424

ORF Size: 1770 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_000424.4](#)

RefSeq Size: 2320 bp

RefSeq ORF: 1773 bp

Locus ID: 3852

UniProt ID: [P13647](#)

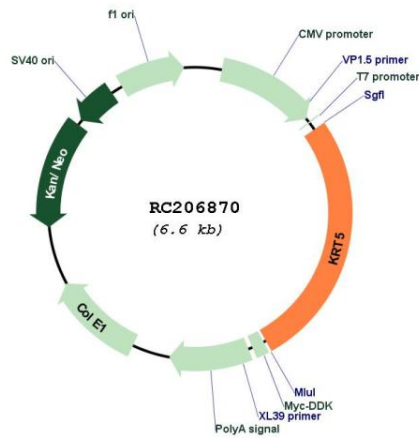
Cytogenetics: 12q13.13

Domains: filament

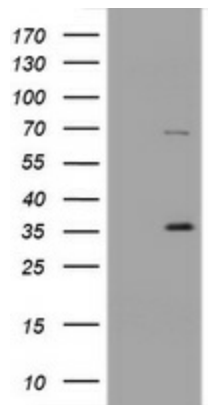
MW: 62.4 kDa

Gene Summary: The protein encoded by this gene is a member of the keratin gene family. The type II cytokeratins consist of basic or neutral proteins which are arranged in pairs of heterotypic keratin chains coexpressed during differentiation of simple and stratified epithelial tissues. This type II cytokeratin is specifically expressed in the basal layer of the epidermis with family member KRT14. Mutations in these genes have been associated with a complex of diseases termed epidermolysis bullosa simplex. The type II cytokeratins are clustered in a region of chromosome 12q12-q13. [provided by RefSeq, Jul 2008]

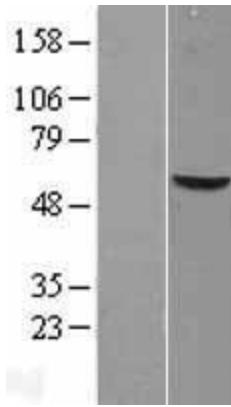
Product images:



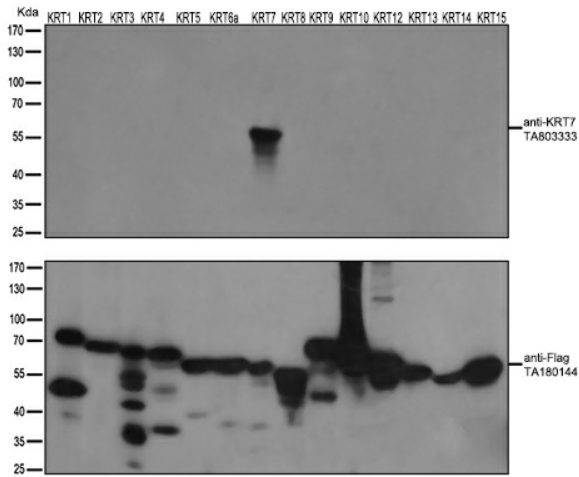
Circular map for RC206870



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY KRT5 (Cat# RC206870, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-KRT5 (Cat# [TA800728]). Positive lysates [LY400149] (100ug) and [LC400149] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400149]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206870 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the overexpression plasmids of 14 KRT isoforms (from left to right: KRT1, Cat# [RC223146]; KRT2, Cat# [RC213030]; KRT3, Cat# [RC223011]; KRT4, Cat# [RC220350]; KRT5, Cat# RC206870; KRT6a, Cat# [RC204328]; KRT7, Cat# [RC201124]; KRT8, Cat# [RC209570]; KRT9, Cat# [RC218091]; KRT10, Cat# [RC204500]; KRT12, Cat# [RC224946]; KRT13, Cat# [RC201179]; KRT14, Cat# [RC214907]; KRT15, Cat# [RC201150]) for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-flag antibody (Cat# [TA180144], 1:1000) or anti-KRT7 mouse monoclonal antibody (Cat# [TA803333], 1:500).