

Product datasheet for **RC224946**

Keratin 12 (KRT12) (NM_000223) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Keratin 12 (KRT12) (NM_000223) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Keratin 12
Synonyms:	K12; MECD1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC224946 representing NM_000223
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGATCTCTCCAACAACACCATGTCACTCTCAGTGCACACCCCGGACTGTCCCGCGGCTCTCCTCGC
 AGAGTGTGATAGGCAGACCCAGGGGCATGTCTGCTTCCAGTGTGGAAAGTGGTTATGGGGAAAGTGCCTT
 TGGCTTTGGAGCCAGCTGTGGGGGAGGCTTTTCTGCTGCTTCCATGTTTGGTTCTAGTCCGGCTTTGGG
 GGTGGCTCCGGAAGTTCATGGCAGGAGGACTGGGTGCTGGTTATGGGAGAGCCCTGGGTGGAGGTAGCT
 TTGGAGGGCTGGGGATGGGATTTGGGGCAGCCAGGAGGTGGCTCTTAGGTATTCTCTCGGGCAATGA
 TGGAGGCCTTCTTTCTGGATCAGAAAAAGAACTATGCAAAATCTTAATGATAGATTAGCTTCTACCTG
 GATAAGGTGCGAGCTCTAGAAGAGGCTAATACTGAGCTAGAAAAAAAATTCGAGAATGGTATGAAACAC
 GAGGAAGTGGGACTGCAGATGCTTACAGAGCGATTACAGCAAAATATTATCCACTGATTGAAGACCTCAG
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 GCCTGCGCCGGGTGCTGGACGAGCTGACCTGACCAGGACCGACCTGGAGATGCAGATCGAGAGCCTGAA
 CGAGGAGCTGGCCTACATGAAGAAGAACCACGAGGATGAGCTCCAAAGCTTCCGGGTGGGCGGCCAGGC
 GAGGTCAGCGTAGAAATGGACGCTGCCCGGAGTGGACCTCACCAGGCTCCTCAATGATATGCGGGCGC
 AGTATGAAACCATCGCTGAGCAGAATCGGAAGGACGCTGAAGCCTGGTTCATTGAAAAGAGCGGGGAGCT
 CCGTAAGGAGATTAGCACCAACCCGAGCAGCTTCACTCCAGCAAGAGCGAGGTACCCAGCTGCGTGC
 GCCTTTTCAGAACCTGGAGATCGAGCTACAGTCCCAGCTGCCATGAAGAAATCCCTGGAGGACTCCTTGG
 CCGAAGCCGAGGGCGATTACTGCGCGCAGCTGTCCCAGTGCAGCAGCTCATCAGCAACCTGGAGGCACA
 GCTGCTCCAGGTGCGCGCGGACGACGAGCGCAGAACGTTGGACCACCAGCGGCTGCTGAATGTCAAGGCC
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 AAAGTTTATTTGTGACAGACTCCAAATCACAAGCACAGTCAACTGATTCTCTAAAGACCAACCAAAAC
 CCGAAAAATCAAGACAGTTGTGCAGGAGATGGTGAATGGTGGAGTGGTCTCATCTCAAGTTCAGGAAAT
 GAAGAATAATG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC224946 representing NM_000223
 Red=Cloning site Green=Tags(s)

MDLSNNTMSLSVRTPGLSRRLSSQSVIGRPRGMSASSVGSYGGSAFGFGASCGGGFSAAAMFSGSSGFG
 GSGSSMAGGLGAGYGRALGGGSGGLGMFGGSPGGSLGILSGNDGGLL SGSEKETMQNLNDRLASYL
 DKVRALEEANTELENKIREWYETRGTGTADASQSDYSKYYP LIEDLRNKIISASIGNAQLLLQIDNARLA
 AEDFRMKYENELALRQGV EADINGLRRVLDLTLTRTDLEMQIESLNEELAYMKNHEDELQSFRVGGPG
 EVSVEMDAAPGVDLTRLLNDMRAQYETIAEQNRKD AEAWFIEKSGELRKEISTNTEQLQSSKSEVTDLRR
 AFQNLIEIQLS LAMKKSLEDSLAEAGDYCAQLSQVQQLISNLEAQLLQVRADAERQNVHDHQLLNVKA
 RLELEIETYRRLDGEAQDGL EESL FVTDSKSAQSTDSKDPKTRKIKTVVQEMVNGEVVSSVQVEI
 EELM

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8044_h02.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_000223

ORF Size: 1482 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_000223.4](#)

RefSeq Size: 1867 bp

RefSeq ORF: 1485 bp

Locus ID: 3859

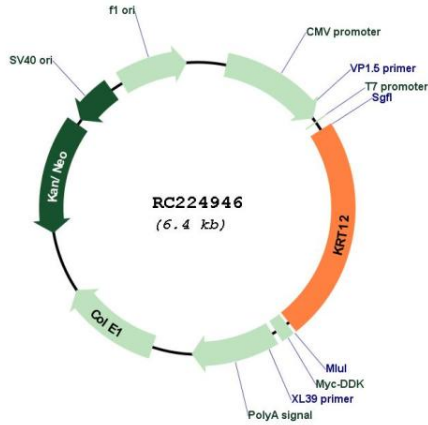
UniProt ID: [Q99456](#)

Cytogenetics: 17q21.2

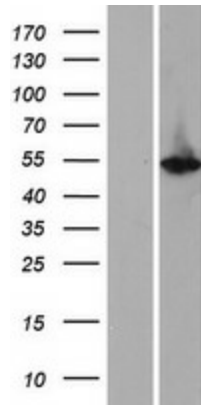
MW: 53.3 kDa

Gene Summary: KRT12 encodes the type I intermediate filament chain keratin 12, expressed in corneal epithelia. Mutations in this gene lead to Meesmann corneal dystrophy. [provided by RefSeq, Jul 2008]

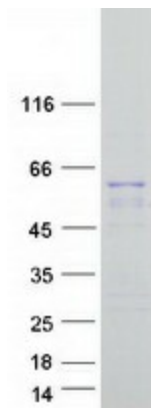
Product images:



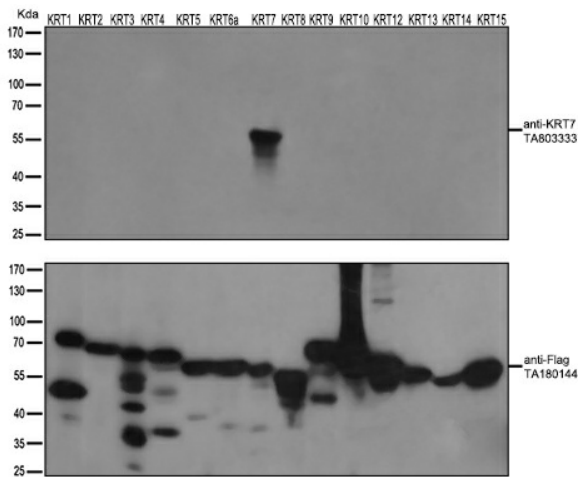
Circular map for RC224946



Western blot validation of overexpression lysate (Cat# [LY424858]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224946 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KRT12 protein (Cat# [TP324946]). The protein was produced from HEK293T cells transfected with KRT12 cDNA clone (Cat# RC224946) using 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).