

Product datasheet for **RC220350**

Cytokeratin 4 (KRT4) (NM_002272) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cytokeratin 4 (KRT4) (NM_002272) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cytokeratin 4
Synonyms:	CK-4; CK4; CYK4; K4; WSN1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC220350 representing NM_002272
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGACTTCTGTAGGTGTGTTTAGTGACATGCTCAACGGGTGCGGGAAGGATGGGCTTGTGCCAAGGGCCA
 AGCCAGAGATGTTTCAGATTTTCCCTTATGCCCTGCAACCAAGCCCTGCTGCTCCAGGACATATAA
 GAGACGAAGGCTGAGGGCTCCAGCACTACCGGCTGGGCCCTGTCACTTCTCTGATAGCTCCAGCTCG
 CTCTCTGCAGCCATGATTGCCAGACAGCAGTGTGTCCGAGGCGGGCCCGGGGCTTCAGCTGTGGCTCG
 CCATTGTAGGCGGTGGCAAGAGAGGTGCCTTCAGCTCAGTCTCCATGTCTGGAGGTGCTGGCCGATGCTC
 TTCTGGGGATTGGCAGCAGAAGCCTCTACAACCTCAGGGGAACAAAAGCATCTCCATGAGTGTGGCT
 GGGTCACGACAAGGTGCCTGCTTTGGGGTGTGGAGGCTTTGGCACTGGTGGCTTTGGTGGTGGATTTG
 GGGCTCCTTCAGTGGTAAGGGTGGCCCTGGCTTCCCCGTGCCCCGCTGGGGGAATTCAGGAGGTAC
 CATCAACCAGAGCTTGTCACCCCCTCCAGTGGAGATTGACCCTGAGATCCAGAAAGTCCGGACGGAA
 GAGCGCAACAGATCAAGCTCCTCAACAACAAGTTTGCCTCCTCATCGACAAGGTGCAGTTCTTAGAGC
 AACAGAATAAGGTCTGGAGACCAATGGAACCTGCTCCAGCAGCAGACGACCACCACCTCCAGAAAAA
 CCTTGAGCCCCTCTTGAGACCTACCTCAGTGTCTGAGGAAGCAGCTAGATACCTTGGCAATGACAAA
 GGGCGCTGCAGTCTGAGCTGAAGACCATGCAGGACAGCGTGGAGGACTCAAGACTAAGTATGAAGAGG
 AGATCAACAAACGCACAGCAGCCGAGAATGACTTTGTGGTCTAAAGAAGGACGTGGATGCTGCCTACCT
 GAACAAGTGGAGTTGGAGGCCAAGGTGGACAGTCTTAATGACGAGATCAACTTCTGAAGTCTCTAT
 GATGCGGAGCTGTCCAGATGCAGACCCATGTGAGCGACACGTCGGTGGTCTTTCCATGGACAACAACC
 GCAACCTGGACCTGGACAGCATTATTGCCGAGTCCGTCGCCAGTACGAGGAGATTGCCAGAGGACAA
 GGCTGAGGCTGAAGCCCTGTACCAAGCAAGTCCAGCAGCTCCAGATCTCGGTTGACCAACATGGTGAC
 AACCTGAAGAACAACAGAGTGAATTGACAGCTCAACAGGATGATCCAGAGGCTGCGGCAGAGATCG
 AGAACATCAAGAAGCAGTGCCAGACTCTTCAGGTATCCGTGGTGTGATGCAGAGCAGCGAGGTGAGAATGC
 CCTTAAAGATGCCACAGCAAGCGCTAGAGCTGGAGGCTGCCCTGCAGCAGGCCAAGGAGGAGCTGGCA
 CGAATGCTGCGTGAAGTACCAGGAGCTCATGAGTGTGAAGTGGCCTTGGACATCGAGATCGCCACCTACC
 GCAAACCTGCTGGAGGGCAGGAGTACAGAATGTCTGGAGAATGCCAGAGTCCGCTGAGCATCTCTGTGGT
 CAGCGGTAGCACCAGCACTGGAGGCATCAGCGGAGGATTAGGAAGTGGCTCCGGTTTGGCTGAGTGT
 GGCTTTGGCTCCGCTCTGGAAGTGGCTTTGGGTTTGGTGGCAGTGTCTCTGGCAGTCCAGCAGCAAGA
 TCATCTTACCACCACCTGAACAAGAGACGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC220350 representing NM_002272
 Red=Cloning site Green=Tags(s)

MTSVGVFSDMLNGCGKDGLVPRAKPRDVDFSLYAPATKPCCSRTYKRRRLRAPALTGLGPVTSLIAPSS
 LSAAMIARQQCVRGGPRGFSCGSAIVGGGKRGAFSSVSMGGAGRCSSGGFSGRSLYNLRGNKSISSMSVA
 GSRQACFGGAGGFTGGFGGFSGKGGPFPVCPAGGIQEVTTINQSLTPLHVEIDPEIQKVRTE
 EREQIKLLNNKFASFIDKVFLEQQNKVLETKWNLQQQTTTTSSKNLEPLFETYL SVLRKQLDTLGNDK
 GRLQSELKTMQDSVEDFKTKYEEEEINKRTAAENDFVVLKKDVAAYLNKVELEAKVDSLNDIEINFLKVL
 DAELSQMQTHVSDTSVVL SMDNNRNL DLSIIAEVRAQYEEIAQRSKAEAEALYQTKVQQLQISVDQHG
 NLKNTKSEIAELNRMIRLRAE IENIKKQCQTLQVSVADAEQRGENALKDAHSKRVELEAALQQAKEELA
 RMLREYQELMSVKLALDIEIATYRKLLEGEEYRMSGECQSAVSI SVVSGSTSTGGISGGLGSGSGFGLSS
 GFGSGSGSGFGGGSVSGSSSKIISTTTLNKR

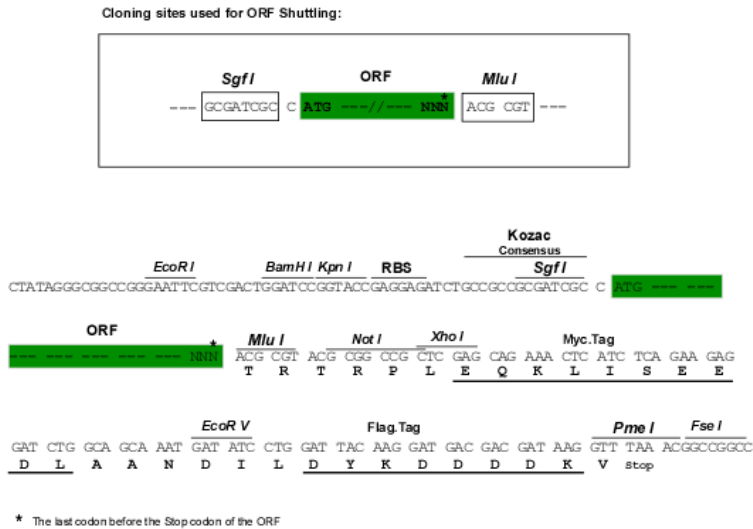
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mg3828_f06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002272

ORF Size: 1782 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_002272.2](#), [NP_002263.2](#)

RefSeq Size: 2576 bp

RefSeq ORF: 1563 bp

Locus ID: 3851

UniProt ID: [P19013](#)

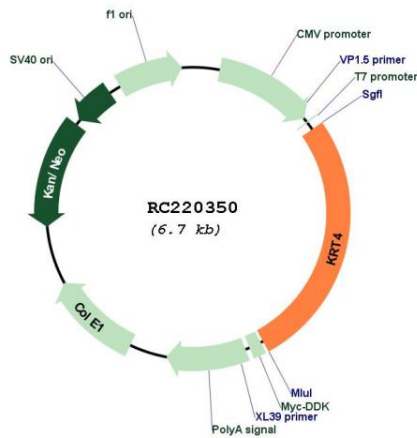
Cytogenetics: 12q13.13

Domains: filament

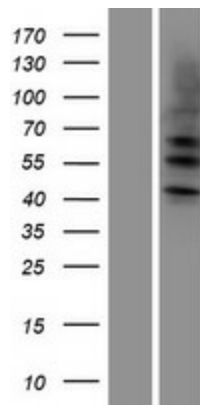
MW: 63.7 kDa

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 differentiated layers of the mucosal and esophageal epithelia with family member KRT13. Mutations in these genes have been associated with White Sponge Nevus, characterized by oral, esophageal, and anal leukoplakia. The type II cytokeratins are clustered in a region of chromosome 12q12-q13. [provided by RefSeq, Jul 2008]

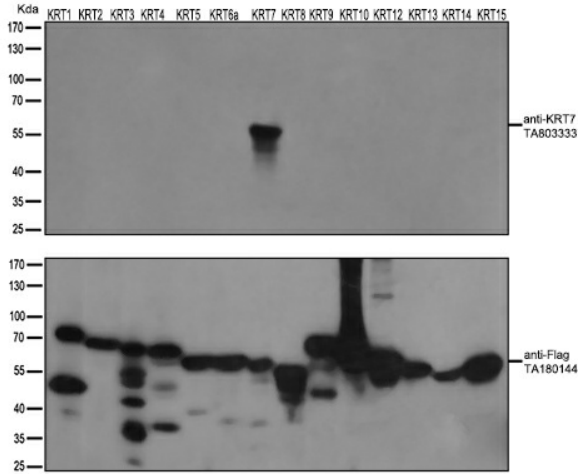
Product images:



Circular map for RC220350



Western blot validation of overexpression lysate (Cat# [LY419424]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220350 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).