

## Product datasheet for **RC209570**

### Cytokeratin 8 (KRT8) (NM\_002273) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cytokeratin 8 (KRT8) (NM_002273) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cytokeratin 8
Synonyms:	CARD2; CK-8; CK8; CYK8; K2C8; K8; KO
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC209570 representing NM\_002273  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCCATCAGGGTGACCCAGAAGTCCTACAAGGTGTCCACCTCTGGCCCCGGGCTTCAGCAGCCGCT  
 CCTACACGAGTGGGCCCGGTTCCCGCATCAGCTCCTCGAGCTTCTCCCGAGTGGGCAGCAGCAACTTTCG  
 CGGTGGCCTGGGCGGCGGCTATGGTGGGGCCAGCGGCATGGGAGGCATCACCGCAGTTACGGTCAACCCAG  
 AGCCTGTCTGAGCCCCCTGTCTGGAGGTGGACCCCAACATCCAGGCCGTGCGCACCCAGGAGAAGGAGC  
 AGATCAAGACCCTCAACAACAAGTTTGCCTCCTTCATAGACAAGGTACGGTTCTGGAGCAGCAGAAACA  
 GATGCTGGAGACCAAGTGGAGCCTCTGCAGCAGCAGAAGACGGCTCGAAGCAACATGGACAACATGTTT  
 GAGAGTACATCAACAACCTTAGGCGGCAGCTGGAGACTCTGGGCCAGGAGAAGCTGAAGCTGGAGGCGG  
 AGCTTGGCAACATGCAGGGGCTGGTGGAGGACTCAAGAACAAGTATGAGGATGAGATCAATAAGCGTAC  
 AGAGATGGAGAACGAATTTGCTCATCAAGAAGGATGTGGATGAAGCTTACATGAACAAGTAGAGCTG  
 GAGTCTCGCCTGGAAGGGCTGACCGACGAGATCAACTTCCTCAGGCAGCTGTATGAAGAGGAGATCCGGG  
 AGCTGCAGTCCCAGATCTCGGACACATCTGTGGTGTCCATGGACAACAGCCGCTCCCTGGACATGGA  
 CAGCATCATTGCTGAGGTCAAGGCACAGTACGAGGATATTGCCAACCGCAGCCGGGCTGAGGCTGAGAGC  
 ATGTACCAGATCAAGTATGAGGAGCTGCAGAGCCTGGCTGGGAAGCACGGGGATGACCTGCGCGCCACAA  
 AGACTGAGATCTCTGAGATGAACCGAACATCAGCCGGCTCCAGGCTGAGATTGAGGGCCTCAAAGGCCA  
 GAGGGCTTCCCTGGAGGCCGCCATTGCAGATGCCGAGCAGCGTGGAGAGCTGGCCATTAAAGATGCCAAC  
 GCCAAGTTGTCCGAGCTGGAGGCCGCCCTGCAGCGGCCAAGCAGGACATGGCGCGGCAGCTGCGTGAGT  
 ACCAAGAGCTGATGAACGTCAAGCTGGCCTGGACATCGAGATCGCCACCTACAGGAAGCTGCTGGAGGG  
 CGAGGAGAGCCGGCTGGAGTCTGGGATGCAGAACATGAGTATTACATACGAAGACCACCGCGGCTATGCA  
 GGTGGTCTGAGCTCGGCCTATGGGGCCTCACAAGCCCCGGCCTCAGCTACAGCCTGGGCTCCAGCTTTG  
 GCTCTGGCGCGGCTCCAGCTCCTTCAGCCGACCAGCTCCTCCAGGGCCGTGGTTGTGAAGAAGATCGA  
 GACACGTGATGGGAAGCTGGTGTCTGAGTCTCTGACGTCTGCCCAAG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC209570 representing NM\_002273  
 Red=Cloning site Green=Tags(s)

MSIRVTQKSYKVSTSGPRAFSSRSYTSVSGPSRISSSSFSRVGSSNFRGGLGGGYGGASGMGGITAVTVNQ  
 SLLSPLVLEVDPNIQAVRTQEKEQIKTLNKFASFIDKVRFLQKQNKMLETKWSLLQQQKTARSNDNMNF  
 ESYINLRRQLETLGQEKLEAEELGNMQGLVEDFKNKYEDEINKRTEMENEFVLIKDVDEAYMKNVEL  
 ESRLEGLTDEINFLRQLYEEEIRELQSISDTSVVLSDMNSRSLDMSIIAEVKAQYEDIANRSRAEAS  
 MYQIKYEELQSLAGKHGDDLRRTKTEISEMNRNISRQAEIEGLKQRASLEAAIADAEQRGELAIKDAN  
 AKLSELEAALQRAKQDMARQLREYQELMNVKLALDIEIATYRKLLEGEESRLESGMQNMSIHTKTTSGYA  
 GGLSSAYGGLTSPGLSYSLGSSFGSAGSSSFSRTSSSRAVVVKKIETRDGKLVSESSDVLPK

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6269\\_a12.zip](https://cdn.origene.com/chromatograms/mk6269_a12.zip)

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



ACCN: NM\_002273

ORF Size: 1449 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM\\_002273.4](#)

RefSeq Size: 1788 bp

RefSeq ORF: 1452 bp

Locus ID: 3856

UniProt ID: [P05787](#)

Cytogenetics: 12q13.13

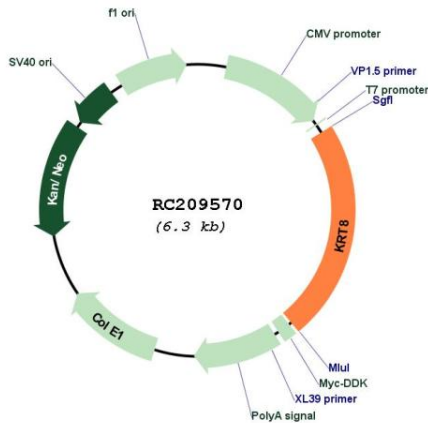
Domains: filament

Protein Families: Druggable Genome

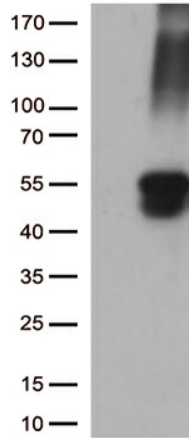
MW: 53.5 kDa

**Gene Summary:** This gene is a member of the type II keratin family clustered on the long arm of chromosome 12. Type I and type II keratins heteropolymerize to form intermediate-sized filaments in the cytoplasm of epithelial cells. The product of this gene typically dimerizes with keratin 18 to form an intermediate filament in simple single-layered epithelial cells. This protein plays a role in maintaining cellular structural integrity and also functions in signal transduction and cellular differentiation. Mutations in this gene cause cryptogenic cirrhosis. Alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Jan 2012]

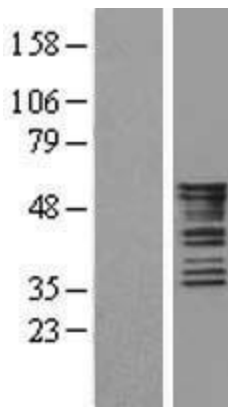
**Product images:**



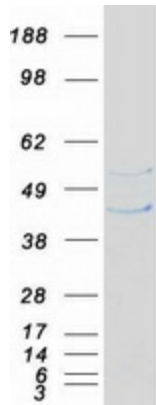
Circular map for RC209570



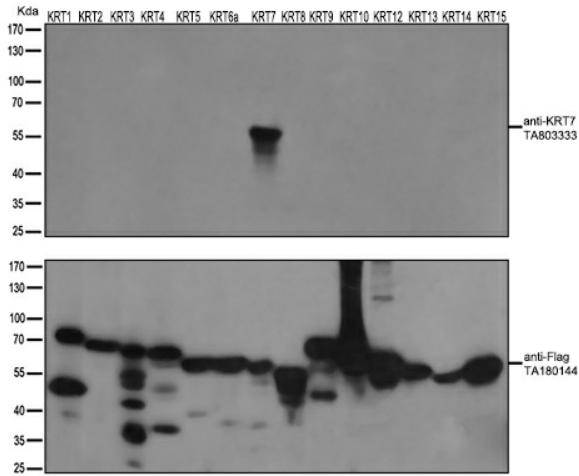
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY KRT8 (Cat# RC209570, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-KRT8 (Cat# [TA500021])(1:500).



Western blot validation of overexpression lysate (Cat# [LY419425]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209570 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KRT8 protein (Cat# [TP309570]). The protein was produced from HEK293T cells transfected with KRT8 cDNA clone (Cat# RC209570) 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).