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# Product datasheet for RC204328

## KRT6A (NM_005554) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | KRT6A (NM_005554) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | KRT6A |
| **Synonyms:** | CK-6C; CK-6E; CK6A; CK6C; CK6D; K6A; K6C; K6D; KRT6C; KRT6D; PC3 |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |



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**ORF Nucleotide Sequence:**

>RC204328 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCAGCACATCCACCACCATCAGGAGCCACAGCAGCAGCCGCCGGGGTTTCAGTGCCAGCTCAGCCA
GGCTCCCTGGGGTCAGCCGCTCTGGCTTCAGCAGCGTCTCCGTGTCCCGCTCCAGGGGCAGTGGTGGCCT
GGGTGGTGCATGTGGAGGAGCTGGCTTTGGCAGCCGCAGTCTGTATGGCCTGGGGGGCTCCAAGAGGATC
TCCATTGGAGGGGGCAGCTGTGCCATCAGTGGCGGCTATGGCAGCAGAGCCGGAGGCAGCTATGGCTTTG
GTGGCGCCGGGAGTGGATTTGGTTTCGGTGGTGGAGCCGGCATTGGCTTTGGTCTGGGTGGTGGAGCCGG
CCTTGCTGGTGGCTTTGGGGGCCCTGGCTTCCCTGTGTGCCCCCCTGGAGGCATCCAAGAGGTCACCGTC
AACCAGAGTCTCCTGACTCCCCTCAACCTGCAAATCGATCCCACCATCCAGCGGGTGCGGGCCGAGGAGC
GTGAACAGATCAAGACCCTCAACAACAAGTTTGCCTCCTTCATCGACAAGGTGCGGTTCCTGGAGCAGCA
GAACAAGGTTCTGGAAACAAAGTGGACCCTGCTGCAGGAGCAGGGCACCAAGACTGTGAGGCAGAACCTG
GAGCCGTTGTTCGAGCAGTACATCAACAACCTCAGGAGGCAGCTGGACAGCATTGTCGGGGAACGGGGCC
GCCTGGACTCAGAGCTCAGAGGCATGCAGGACCTGGTGGAGGACTTCAAGAACAAATATGAGGATGAAAT
CAACAAGCGCACAGCAGCAGAGAATGAATTTGTGACTCTGAAGAAGGACGTGGATGCTGCCTACATGAAC
AAGGTTGAACTGCAAGCCAAGGCAGACACTCTCACAGACGAGATCAACTTCCTGAGAGCCTTGTATGATG
CAGAGCTGTCCCAGATGCAGACCCACATCTCAGACACATCTGTGGTGCTGTCCATGGACAACAACCGCAA
CCTGGACCTGGACAGCATCATCGCTGAGGTCAAGGCCCAATATGAGGAGATTGCTCAGAGAAGCCGGGCT
GAGGCTGAGTCCTGGTACCAGACCAAGTACGAGGAGCTGCAGGTCACAGCAGGCAGACATGGGGACGACC
TGCGCAACACCAAGCAGGAGATTGCTGAGATCAACCGCATGATCCAGAGGCTGAGATCTGAGATCGACCA
CGTCAAGAAGCAGTGCGCCAACCTGCAGGCCGCCATTGCTGATGCTGAGCAGCGTGGGGAGATGGCCCTC
AAGGATGCCAAGAACAAGCTGGAAGGGCTGGAGGATGCCCTGCAGAAGGCCAAGCAGGACCTGGCCCGGC
TGCTGAAGGAGTACCAGGAGCTGATGAATGTCAAGCTGGCCCTGGACGTGGAGATCGCCACCTACCGCAA
GCTGCTGGAGGGTGAGGAGTGCAGGCTGAATGGCGAAGGCGTTGGACAAGTCAACATCTCTGTGGTGCAG
TCCACCGTCTCCAGTGGCTATGGCGGTGCCAGTGGTGTCGGCAGTGGCTTAGGCCTGGGTGGAGGAAGCA
GCTACTCCTATGGCAGTGGTCTTGGCGTTGGAGGTGGCTTCAGTTCCAGCAGTGGCAGAGCCATTGGGGG
TGGCCTCAGCTCTGTTGGAGGCGGCAGTTCCACCATCAAGTACACCACCACCTCCTCCTCCAGCAGGAAG
AGCTATAAGCAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC204328 protein sequence
Red=Cloning site Green=Tags(s)

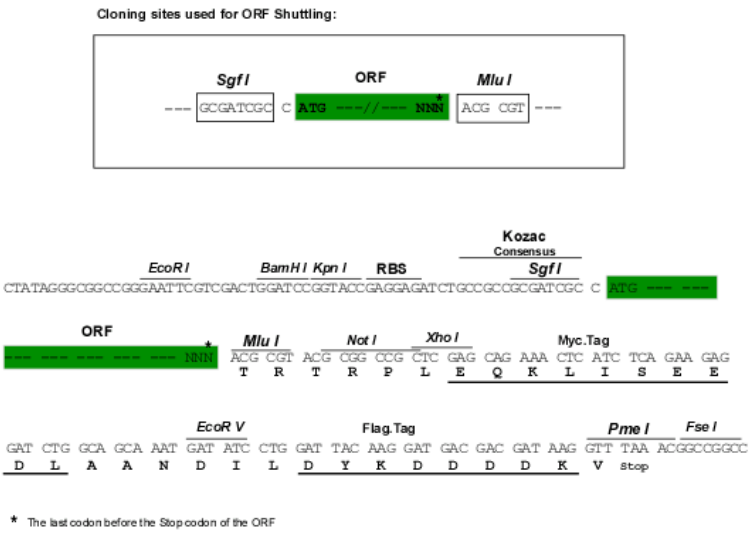
MASTSTTIRSHSSSRRGFSASSARLPGVSRSGFSSVSVSRSRGSGGLGGACGGAGFGSRSLYGLGGSKRI
SIGGGSCAISGGYGSRAGGSYGFGGAGSGFGFGGGAGIGFGLGGGAGLAGGFGGPGFPVCPPGGIQEVTV
NQSLLTPLNLQIDPTIQRVRAEEREQIKTLNNKFASFIDKVRFLEQQNKVLETKWTLLQEQGTKTVRQNL
EPLFEQYINNLRRQLDSIVGERGRLDSELRGMQDLVEDFKNKYEDEINKRTAAENEFVTLKKDVDAAYMN
KVELQAKADTLTDEINFLRALYDAELSQMQTHISDTSVVLSMDNNRNLDLDSIIAEVKAQYEEIAQRSRA
EAESWYQTKYEELQVTAGRHGDDLRNTKQEIAEINRMIQRLRSEIDHVKKQCANLQAAIADAEQRGEMAL
KDAKNKLEGLEDALQKAKQDLARLLKEYQELMNVKLALDVEIATYRKLLEGEECRLNGEGVGQVNISVVQ
STVSSGYGGASGVGSGLGLGGGSSYSYGSGLGVGGGFSSSSGRAIGGGLSSVGGGSSTIKYTTTSSSSRK
SYKH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** https://cdn.origene.com/chromatograms/mk6430_b11.zip

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




**ACCN:** NM_005554

**ORF Size:** 1692 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_005554.4

**RefSeq Size:** 2450 bp

**RefSeq ORF:** 1695 bp

**Locus ID:** 3853

**UniProt ID:** P02538

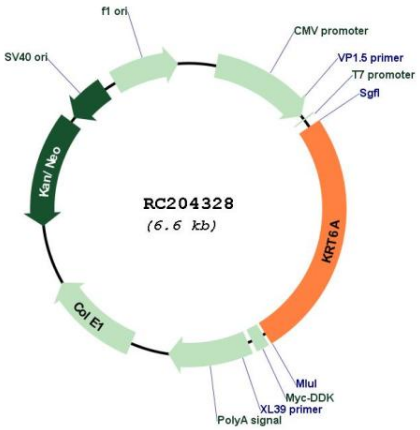
**Cytogenetics:** 12q13.13

**Domains:** filament

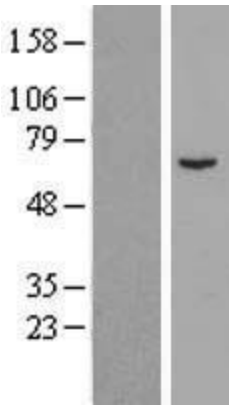
**MW:** 60 kDa

**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. As many as six of this type II cytokeratin (KRT6) have been identified; the multiplicity of the genes is attributed to successive gene duplication events. The genes are expressed with family members KRT16 and/or KRT17 in the filiform papillae of the tongue, the stratified epithelial lining of oral mucosa and esophagus, the outer root sheath of hair follicles, and the glandular epithelia. This KRT6 gene in particular encodes the most abundant isoform. Mutations in these genes have been associated with pachyonychia congenita. In addition, peptides from the C-terminal region of the protein have antimicrobial activity against bacterial pathogens. The type II cytokeratins are clustered in a region of chromosome 12q12-q13. [provided by RefSeq, Oct 2014]

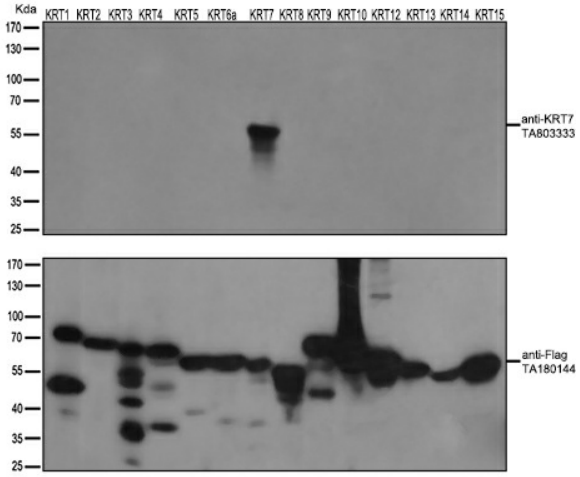
## Product images:




Circular map for RC204328




Western blot validation of overexpression lysate (Cat# [LY417232]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204328 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).