

## Product datasheet for **RG204500**

### Cytokeratin 10 (KRT10) (NM\_000421) Human Tagged ORF Clone

#### Product data:

|                           |                                                           |
|---------------------------|-----------------------------------------------------------|
| Product Type:             | Expression Plasmids                                       |
| Product Name:             | Cytokeratin 10 (KRT10) (NM_000421) Human Tagged ORF Clone |
| Tag:                      | TurboGFP                                                  |
| Symbol:                   | Cytokeratin 10                                            |
| Synonyms:                 | BCIE; BIE; CK10; EHK; K10; KPP                            |
| Mammalian Cell Selection: | Neomycin                                                  |
| Vector:                   | pCMV6-AC-GFP (PS100010)                                   |
| E. coli Selection:        | Ampicillin (100 ug/mL)                                    |



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**ORF Nucleotide Sequence:**

>RG204500 representing NM\_000421.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```

GCTCGTTTAGTGAACCGTCAGAAATTTTGAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCACGATCGCC
ATGTCTGTTCGATACAGCTCAAGCAAGCACTACTCTTCTCCCGCAGTGGAGGAGGAGGAGGAGGAGGA
GGATGTGGAGGAGGAGGAGGAGGTGTCATCCCTAAGAATTTCTAGCAGCAAAGGCTCCCTTGGTGGAGGA
TTTAGCTCAGGGGGTTTCAAGTGGTGGCTCTTTTAGCCGTGGGAGCTCTGGTGGGGGCTGCTTTGGGGGC
TCATCAGGTGGCTATGGAGGATTAGGAGTTTTTGGTGGAGGTAGCTTTCTGTGAAGCTATGGAAGTAGC
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GACAAAGTTCGGGCTCTGGAAGAATCAAACTATGAGCTGGAAGGCAAAATCAAGGAGTGGTATGAAAAG
CATGGCAACTCACATCAGGGGGAGCCTCGTGACTACAGCAAATACTACAAAACCATCGATGACCTTAAA
AATCAGATTCTCAACCTAACAACCTGATAATGCCAACATCTGCTTCAGATCGACAATGCCAGGCTGGCA
GCTGATGACTTCAGGCTGAAGTATGAGAATGAGGTAGCTCTGCGCCAGAGCGTGGAGGCTGACATCAAC
GGCCTGCGTAGGGTGTGGATGAGCTGACCTGACCAAGGCTGACCTGGAGATGCAAATTGAGAGCCTG
ACTGAAGAGCTGGCCTATCTGAAGAAGAACACGAGGAGGAAATGAAAGACCTTCGAAATGTGTCCACT
GGTGTATGTGAATGTGGAATGAATGCTGCCCGGGTGTGATCTGACTCAACTTCTGAATAACATGAGA
AGCCAATATGAACAACCTGTGTAACAAACCGCAAAGATGCTGAAGCCTGGTTCAATGAAAAGAGCAAG
GAAGTACTACAGAAATTGATAAATGACATTGAACAGATATCCAGCTATAAATCTGAGATTACTGAATTG
AGACGTAATGTACAAGCTCTGGAGATAGAACTACAGTCCCAACTGGCCTTGAAACAATCCCTGGAAGCC
TCCTTGGCAGAAACAGAAGGTGCTACTGTGTGACAGCTCAGAGATTGAGGCCAGATATCCGCTCTG
GAAGAACAGTTGCAACAGATTGAGCTGAAACCGAGTGCCAGAATACTGAATACCAACAACCTCTGGAT
ATTAAGATCCGACTGGAGAATGAAATTCAAACCTACCGCAGCCTGCTAGAAGGAGAGGGAAGTCCGGA
GGCGGGGACGCGGCGGCGGAAGTTTCGGCGGCGGCTACGGCGGCGGAAGCTCCGGCGGCGGAAGCTCC
GGCGGCGGCTACGGCGGCGGCCACGGCGGCAGTTCCGGCGGCGGCTACGGAGGCGGAAGCTCCGGCGGC
GGAAGCTCCGGCGGCGGCTACGGGGGCGGAAGCTCCAGCGGCGGCCACGGCGGCAGTTCCAGCGGCGGC
TACGGTGGTGGCAGTTCCGGCGGCGGCGGCGGCGGCTACGGGGGCGGCAGCTCCGGCGGCGGCAGCAGC
TCCGGCGGCGGATACGGCGGCGGCAGCTCCAGCGGAGGCCACAAGTCTCTCTTCCGGGTCCGTGGGC
GAGTCTTCATCTAAGGGACCAAGATAC
ACGCGTACGCGGCGGCTCGAG - GFP Tag - GTTTAAAC
  
```

**Protein Sequence:**

>Peptide sequence encoded by RG204500  
 Blue=ORF Red=Cloning site Green=Tag(s)

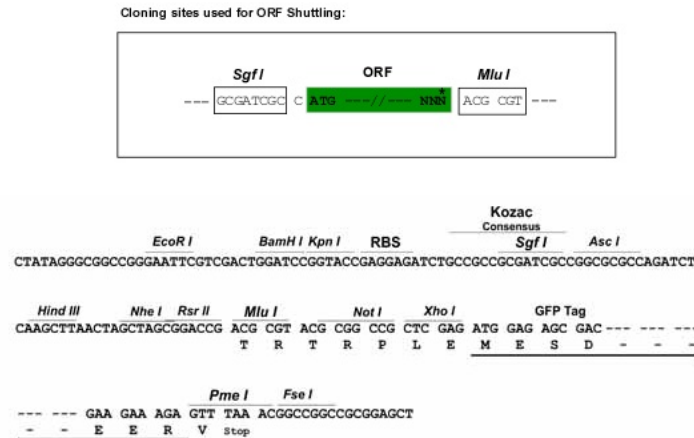
```

MSVRYSSSKHYSSSRSGGGGGGGCGGGGVSSLRISSSKGSLLGGFSSGGFSGGSFSGSSGGGCGFGG
SSGGYGGGLGGFSGGSFRGSYSSSFSGSYGGSFSGGSFSGGSFSGGSFSGGSFSGGSFSGGSFSGGSFSGG
GGLLSGNEKVTMQNLNDRLASYLDKVRALEESNYELEGGIKEWYKHNHSHQGEPRDYSKYKTIIDDLK
NQILNLTDDNANILLQIDNARLAADDFRLKYENEVALRQSV EADINGLRRVLDLTLTKADLEMQIESL
TEELAYLKKNH EEMKDLRNVSTGDVNVEMNAPGVDLTQLLNNMRSQYEQLAEQNRKDAEAWFNEKSK
ELTTEIDNNIEQISSYKSEITELRRNVQALEIELQSQLALKQSLEASLAETEGRYCVQLSQIQAQISAL
EEQLQQIRAETECQNTYQQLLDIKIRLENEIQTYRSLLEGGSSGGGGRGGGSFGGGYGGSSGGSS
GGGYGGHGGSSGGYGGSSGGSSGGGYGGSSSGHGGSSSGGYGGSSSGGGGGYGGSSSGGGSS
SGGGYGGSSSGGHKSSSSGSGVGESSSKGPRY
RTRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSTYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRS NATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKA IHP SILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
  
```

**Restriction Sites:**

SgfI-MluI

## Cloning Scheme:



ACCN: NM\_000421

ORF Size: 1752 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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).

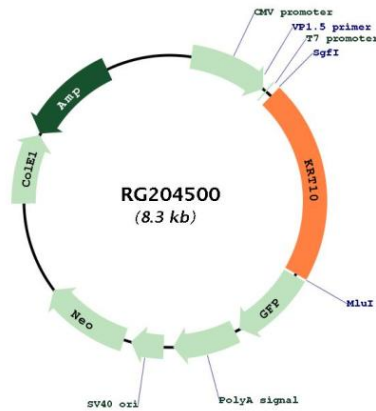
**Reconstitution Method:**

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\\_000421.2](#), [NP\\_000412.2](#)  
 RefSeq Size: 2162 bp  
 RefSeq ORF: 1755 bp  
 Locus ID: 3858  
 UniProt ID: [P13645](#)  
 Cytogenetics: 17q21.2  
 MW: 58.8 kDa

**Gene Summary:** This gene encodes a member of the type I (acidic) cytokeratin family, which belongs to the superfamily of intermediate filament (IF) proteins. Keratins are heteropolymeric structural proteins which form the intermediate filament. These filaments, along with actin microfilaments and microtubules, compose the cytoskeleton of epithelial cells. Mutations in this gene are associated with epidermolytic hyperkeratosis. This gene is located within a cluster of keratin family members on chromosome 17q21. [provided by RefSeq, Jul 2008]

## Product images:



Circular map for RG204500