

Product datasheet for **RG213187**

KRTAPI0-12 (NM_198699) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	KRTAPI0-12
Synonyms:	KAPI0.12; KRTAPI8-12; KRTAPI8.12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG213187 ORF sequence, **codon optimized**.
Due to the complexity of NM_198699, the ORF clone is codon optimized for mammalian Expression.
The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**

ATGCTGTATGTTTCATCCGACCTGAGTTATGGGAGCCGCGTGTGCCTGCCAGGGTCTGCGATAGCTGTA
GTGACAGCTGGCAGGTGGATGACTGCCCTGAGTCCTGCTGCGAACCCCTGTTGTGCTCCGGCACCTTG
CCTGTCTTTGGTCTGCACCCCGTAAGCCGAGTCTCATCCCATGTTGTAGGGTCACCTGCGAACCAGAGC
CCCTGTCAGAGTGGATGCACCTCCTCTTGACCCCAAGTTGTTGTCAACAGAGCAGTTGTCAACCTGCTT
GTTGTACTTCAAGCCCATGTCAAGCAGGCTGCTGTGTTCCAGTGTGTTGCAAGACTGTTTGTCTGAAGCC
CGTGTGCTGCATGCCCGTTTGTGCGGCCCTTCTCAAGCTGCTGCCAGCAGAGTTCTTGTGAGCCTGCT
TGTTGCATTTCCAGTCCCTGCCAGCAGTCATGCTGCGTGCCCGATGCTGCAAAACCATATGTTGCGTGC
CTGTGTGACGCGCGCTCCTCACTGTGTTGCCAACAGAGCTCTTGCCAGCCCGCTGCTGTACTACTTC
TTGTTGTAGGCCAGTTCTTCTGTTAGCCTGCTGTGCCGACCAAGTGTGCCGCGCGGCTCGGAGAGTACCC
GTGCCTTCATGTTGCGTGCCCAAGCTCCTGTCAACCTTCTGCGGTCGACTGGCCTCTTGCGGCTCTT
TGCTCTGCCGCGCTACATGCTCCAGACTGGCTTGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



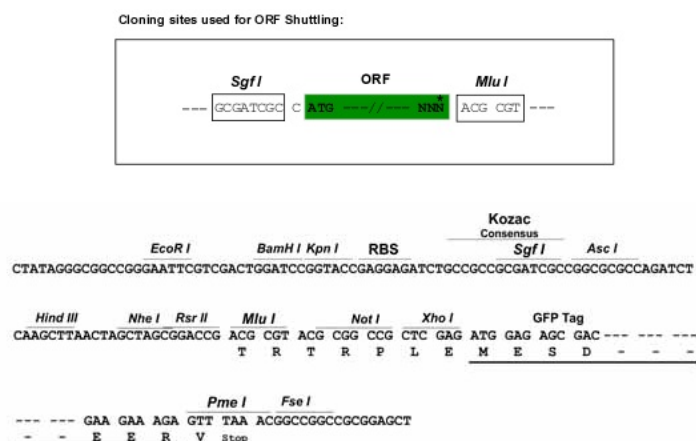
Protein Sequence: >RG213187 representing NM_198699
Red=Cloning site Green=Tags(s)

MSVSCSDLSYSGSRVCLPGSCDSCSDSQVDDCPESCCEPPCCAPCLSLVCTPVSRVSSPCRRTCEPS
PCQSGCTSSCTPSCCQQSSCQPACCTSSPCQACCPVCKTKVCKPVCMPVCGPSSSCCQQSSCQPA
CCISSPCQQSCCPVCKP1CCPVCSGASSLCCQQSSCQPACCTTSCRPSSSVLLCRPVCRRPARRVP
VPSCCVPTSSCOPSCGRLASCGLLCRPTCSRLAC

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_198699

ORF Size: 735 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_198699.1](#), [NP_941972.1](#)

RefSeq Size: 873 bp

RefSeq ORF: 738 bp

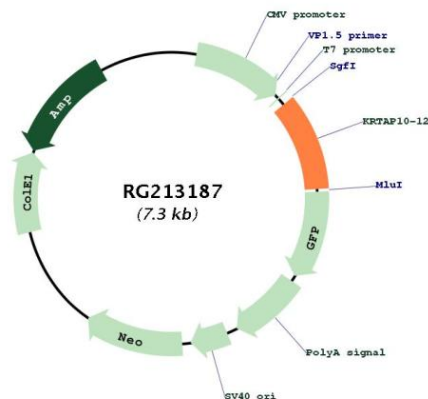
Locus ID: 386685

UniProt ID: [P60413](#)

Cytogenetics: 21q22.3

Gene Summary: In the hair cortex, hair keratin intermediate filaments are embedded in an interfilamentous matrix, consisting of hair keratin-associated proteins (KRTAP), which are essential for the formation of a rigid and resistant hair shaft through their extensive disulfide bond cross-linking with abundant cysteine residues of hair keratins. The matrix proteins include the high-sulfur and high-glycine-tyrosine keratins.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG213187