

Product datasheet for **RG218111**

KRTAP5-2 (NM_001004325) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Tag: TurboGFP

Symbol: KRTAP5-2

Synonyms: KRTAP5-8; KRTAP5.2

Mammalian Cell Selection: Neomycin

Vector: pCMV6-AC-GFP (PS100010)

E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >RG218111 ORF sequence, **codon optimized**.
Due to the complexity of NM_001004325, 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**CGATCGCC**

ATGGGGTGTGTGGTTGTTCTAGGGGCTGCGGATCTGGCTGTGGAGGCTGTGGAGCAGCTGTGGCGGAT
GTGGATCAGGCTGCGCGGCTGTGGCTCCGAAGAGGAGGATGTGGTCCGGTTGTGGCGGGTGTCTAG
CTCCTGCGGCGTTGCGGTAGTAGATGTTACGTGCCAGTTTGTGTGAAGCCCGTGTGTAGCTGGGTG
CCAGCCTGCAGTTGTACCAAGTTGCGGTTTCATGCGCGGCTCCAAAGGGGGATGCGGGTCTTGCGGAGGGT
CAAAAGGCGGCTGTGGAAGCTGCGGAGGCTCTAAAGGGGGGTGTGGAAGCTGTGGGTGTAGCCAGAGTTC
ATGCTGTAAACCTTGTGTGTTTATCCGGTTGTGGATCATCCTGCTGCCAGTCCAGTTGTTGCAAGCCC
TGCTGTTGTCAATCTAGCTGCTGCGTACCGTTTGTGCGCAGAGCAGCTGCTGTAAACCATGCTGTTGCC
AGAGCAATTGCTGCGTGCCCGTGTGTTGTCAATGCAAGATA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



Protein Sequence:

>RG218111 representing NM_001004325

Red=Cloning site Green=Tags(s)

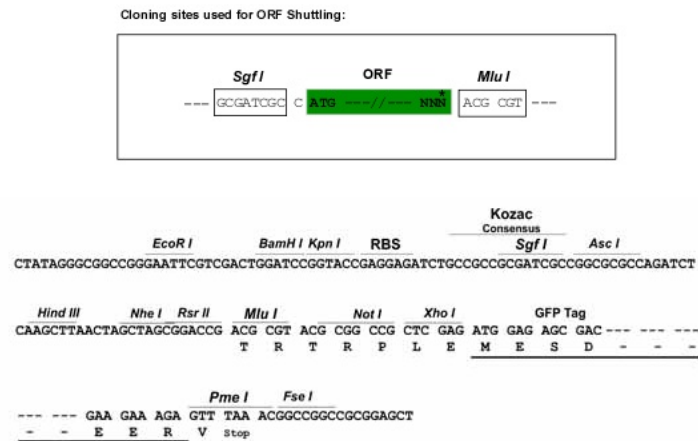
MGCCGCSRGCGSGCGGCGSSCGGCGSGCGGCGSGRGGCGSGCGGCSSSCGCGSRYVPVCCCKPVCSWV
PACSTCTSCGSCGSGKGGCGSCGSGKGGCGSCGSGKGGCGSCGCSQSSCKPCCSSGCGSSCCQSSCKP
CCCQSSCCVPVCCQSSCKPCCQSNCCVPVCCQCKI

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN:

NM_001004325

ORF Size:

531 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_001004325.1](#), [NP_001004325.1](#)

RefSeq Size: 1149 bp

RefSeq ORF: 534 bp

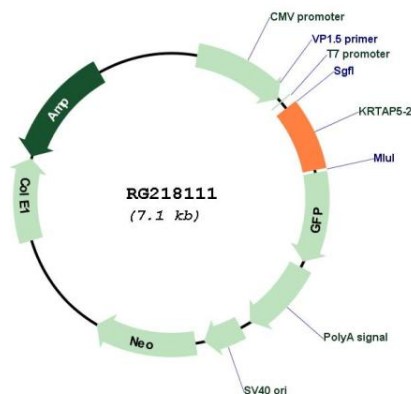
Locus ID: 440021

UniProt ID: [Q70IN4](#)

Cytogenetics: 11p15.5

Gene Summary: In the hair cortex, hair keratin intermediate filaments are embedded in an interfilamentous matrix, consisting of hair keratin-associated protein (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 RG218111