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Product datasheet for MG218801

Krt2 (NM_010668) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Krt2 (NM_010668) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Krt2
Synonyms:	BB005427; Krt2-2; Krt2-17; Krt2e
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>MG218801 representing NM_010668, codon optimized.
Due to the complexity of NM_010668, 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)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCTTGCCAGATTTCTTGCAGAAGCAGGCGCGGCGGCGGCGGGGGGGGTGGCGGGGGGTTTCGGGGGT
TCTCATCCGGATCAGCGGTAGTGTCTGGAGGCTCTCGGCGGTCCAATACTTCTTTTTCATGTATCAGTCG
GCACGGTGGTGGTCGGGGAGGGTCAGGTGGAGGGGGATTTGGCTCTCAAAGCCTTGTGGGGCTTGGCGGC
TACAAGTCTATTAGCTCTTCTGTGGCTGGCAATAGCGGCGGTTACGGAGGAAGCAGTTTTGGTGGGAGTT
CCGGTTTTGGTGGGGGGCGCGGGTTCGGTGGTGGACAAGGTTTTGGTGGTTCAGGCGGGTTCGGAGGTGG
CTCAGGCTTTGGCGGAGGGCAGGGCTTTGGCGGAGGCTCCCGGTTCGGGGGAGGTTCCGGCTTCGGGGGA
GGAGGCTTCGGGGGAGGGTCCTTCGGAGGAGGACGGTTTGGTGGCGGTCCCGGTGGTTTCGGGGGACCCG
GTGGGTTCCCTGGAGGCGGGATTCATGAAGTTAGCGTCAATCAGTCATTGTTGCAGCCCCTGGATGTGAA
GGTCGATCCGGAAATTCAAAATGTAAAGAGCCAGGAGAGAGAACAGATCAAAACCCTGAATAATAAGTTC
GCATCCTTCATAGACAAGGTACGGTTCCTCGAGCAGCAGAATCAAGTGCTGAGAACTAAATGGGAGCTGC
TGCAACAACTGGATGTCGGCAGCCGCACTACCAACCTCGACCCCATCTTTCAGGCTTACATCGGCATGTT
GAAGAAGCAAGTAGACCGGTTGTCCGCTGAGCGAACTAGCCAAGAGTCCGAACTTAACAATATGCAAGAC
CTGGTGGAAGATTTCAAAAAGAAGTATGAGGATGAGATAAACAAAAGGACAAGCGCCGAAAACGACTTCG
TTACCATTAAGAAAGATGTGGACTCATGCTATATGGATAAGACGGAATTGCAAGCACGCCTCGACATTCT
GGCCCAGGAAGTTAACTTTCTCCGGACTTTGTACGATGCCGAGTTGTCCCAGCTCCAGCAAGATGTTACC
GATACCAACGTGATCCTTTCTATGGACAACAACCGGAATCTGGATCTTGATTCTATTATCGCCGAGGTCC
AGAATCAGTACGAAATGATCGCTCATAAGTCTAAGGCTGAGAGCGAGGAGCTTTACCATTCAAAATACGA
GGAGCTCCAGGTAACAGCCGTCAAGCATGGAGACTCCCTCAAGGAGATCAAGATGGAGATCTCTGAGCTG
AATCGCACGATCCAGAGGCTTCAGGGCGAGATTTCCCACGTTAAAAAGCAGTGTAAAGGGGTTCAGGATT
CTATCGCCGACGCTGAGCAGCGGGGTGAACACGCCATTAAGGACGCCCGAGGCAAGTTGACCGATCTTGA
GGAGGCTCTTCAGCAGTGCCGCGAAGATCTGGCCAGACTCTTGAGGGACTACCAGGAGCTGATGAATACT
AAGCTGTCACTGGATGTGGAGATCGCAACATATCGCAAGTTGCTGGAAGGTGAGGAATGTAGAATGTCCG
GGGACTTCTCAGATAATGTGAGCGTGTCTATCACTAGTTCCACGATTTCCTCTTCCGTGGCTTCCAAAAC
CGGATTCGGGAGTGGAGGTCAGAGTAGCGGGGGTCGGGGGTCTTACGGCGGGCGCGGAGGAGGCGGCGGC
GGAGGAAGCACCTACGGGTCAGGAGGCCGCAGTTCCGGATCAAGAGGTAGCGGGAGCGGCAGTGGGGGCG
GGGGGTATTCCTCCGGAGGGGGCAGCAGAGGTGGCTCCGGGGGCGGATATGGTTCTGGTGGCGGTTCCCG
CGGGGGCTCTGGGGGCGGGTACGGCAGCGGGGGCGGCAGTGGCAGCGGTGGTGGCTACAGCAGCGGAGGC
GGCAGCCGGGGTGGTTCTGGCGGCGGGGGAGTTTCAAGCGGGGGAGGATCAAGGGGCGGCAGCTCCTCAG
GGGGAGGCTCACGCGGCGGATCCTCTTCCGGCGGCGGCGGTTACAGTAGTGGCGGCGGAAGCCGGGGTGG
TTCTAGCTCCGGCGGCGCCGGCAGTTCATCCGAAAAGGGTGGCAGCGGGTCCGGGGAGGGCTGCGGAAGC
GGAGTGACATTCTCCTTTAGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

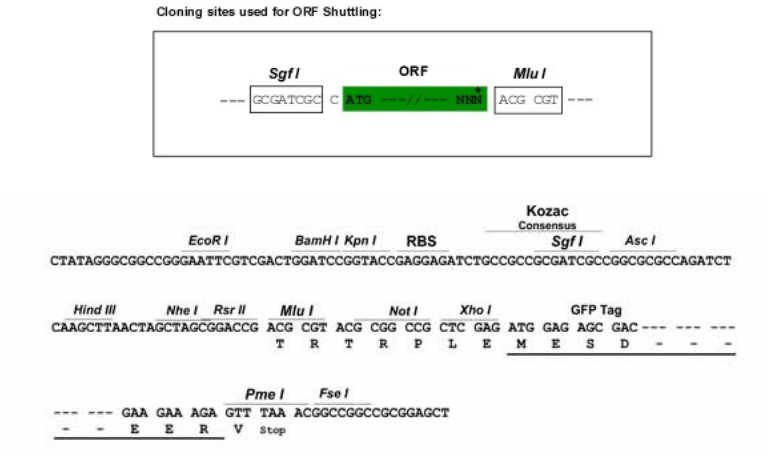
>MG218801 representing NM_010668
Red=Cloning site Green=Tags(s)

MSCQISCRSRRGGGGGGGGFRGFSSGSAVVSGGSRRSNTSFSCISRHGGGRGGSGGGGFGSQSLVGLGG
YKSISSSVAGNSGGYGGSSFGGSSGFGGGRGFGGGQGFGGSGGFGGGSGFGGGQGFGGGSRFGGGSGFGG
GGFGGGSFGGGRFGGGPGGFGGPGGFPGGGIHEVSVNQSLLQPLDVKVDPEIQNVKSQEREQIKTLNNKF
ASFIDKVRFLEQQNQVLRTKWELLQQLDVGSRTTNLDPIFQAYIGMLKKQVDRLSAERTSQESELNNMQD
LVEDFKKKYEDEINKRTSAENDFVTIKKDVDSCYMDKTELQARLDILAQEVNFLRTLYDAELSQLQQDVT
DTNVILSMDNNRNLDLDSIIAEVQNQYEMIAHKSKAESEELYHSKYEELQVTAVKHGDSLKEIKMEISEL
NRTIQRLQGEISHVKKQCKGVQDSIADAEQRGEHAIKDARGKLTDLEEALQQCREDLARLLRDYQELMNT
KLSLDVEIATYRKLLEGEECRMSGDFSDNVSVSITSSTISSSVASKTGFGSGGQSSGGRGSYGGRGGGGG
GGSTYGSGGRSSGSRGSGSGSGGGGYSSGGGSRGGSGGGYGSGGGSRGGSGGGYGSGGGSGSGGGYSSGG
GSRGGSGGGGVSSGGGSRGGSSSGGGSRGGSSSGGGGYSSGGGSRGGSSSGGAGSSSEKGGSGSGEGCGS
GVTFSFR

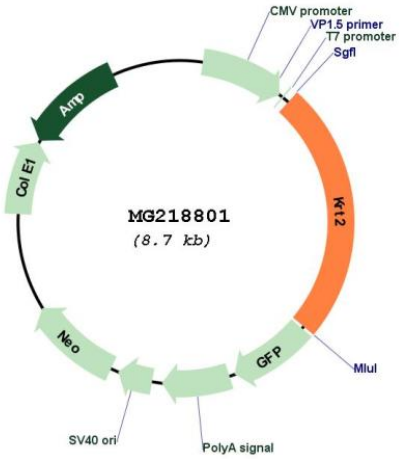
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN:	NM_010668
ORF Size:	2121 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.
RefSeq:	NM_010668.2, NP_034798.2
RefSeq Size:	2629 bp
RefSeq ORF:	2124 bp
Locus ID:	16681
UniProt ID:	Q3TTY5
Cytogenetics:	15 57.03 cM

Gene Summary: Probably contributes to terminal cornification (By similarity). Associated with keratinocyte activation, proliferation and keratinization (By similarity). Plays a role in the establishment of the epidermal barrier on plantar skin (PubMed:26603179).[UniProtKB/Swiss-Prot Function]