

Product datasheet for **RC402806**

MERTK (NM_006343) Human Mutant ORF Clone

Product data:

Product Type:	Mutant ORF Clones
Product Name:	MERTK (NM_006343) Human Mutant ORF Clone
Mutation Description:	R20T
Affected Codon#:	20
Affected NT#:	59
Nucleotide Mutation:	MERTK Mutant (R20T), Myc-DDK-tagged ORF clone of Homo sapiens c-mer proto-oncogene tyrosine kinase (MERTK) as transfection-ready DNA
Effect:	Retinal dystrophy
Symbol:	MERTK
Synonyms:	c-Eyk; c-mer; MER; RP38; Tyro12
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_006343
ORF Size:	2997 bp
Restriction Sites:	Sgfl-Mlul
ORF Nucleotide Sequence:	>RC402806 representing NM_006343 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGCCGGCCCGCTGCCGCTGCTGCTGGGCCTCTTCTCCCGCGCTCTGGCGTACAGCTATCACTG
AGGCAAGGGAAGAAGCCAAGCCTTACCCGCTATCCCGGGACCTTTCCAGGGAGCCTGCAAAGTACCA
CACACCGCTGTTATCCCTTCCCTCAGCCAGTGGGTACCAGCCTGCCTTGATGTTTTACCAACCCAGCCT
GGAAGACCACATACAGGAAACGTAGCCATTCGCCAGGTGACCTCTGTGCAATCAAAGCCCTACCGCCT
TTGCCCTCAAACACACAGTTGGACACATAATACTTTCTGAACATAAAGGTGTCAAATTTAATTGCTCAAT
CAGTGTACCTAATATATACCAGGACACCACAATTTCTTGGTGGAAAGATGGGAAGGAATTGCTTGGGGCA
CATCATGCAATTACACAGTTTTATCCAGATGATGAAGTTACAGCAATAATCGCTTCTTCAGCATAACCA



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GTGTGCAGCGTTCAGACAATGGGTCGTATATCTGTAAGATGAAAATAAACAATGAAGAGATCGTGTCTGA
TCCCATCTACATCGAAGTACAAGGACTTCTCACTTTACTAAGCAGCCTGAGAGCATGAATGTCACCAGA
AACACAGCCTTCAACCTCACCTGTCAGGCTGTGGGCCCGCTGAGCCCGTCAACATTTTTCTGGGTTCAA
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ACCGGGGAGAGACTTGTAGGAATGGGCTCCTGGTCCCATTGAGCATGCTGCCCTTGGGAAGCTCA
TTGCCCGATGAACTTTTGTGCTGACGACTCCTCAGAAGGCTCAGAAGTCTGATG

AGCGGACCCACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence: >RC402806 representing NM_006343
 Red=Cloning site Green=Tags(s)

MGPAPLPLLLGLFLPALWRTAITEAREEAQPYLPFGPFGSLQDHTPLLSLPHASGYQPALMFSPQ
 GRPHTGNVAIPQVTSVESKPLPLAFKHTVGHILSEHGKVKFNCSISVPNIYQDTTISWWKDGKELLGA
 HHAITQFYPDDEVTAIIASFSTSVQRSDNGSYICKMKINNEEIVSDPIYIEVQGLPHFTKQPESMNVTR
 NTAFNLTQAVGPPPEPVNIFWVQNSRVNEQPEKSPSVLTVPGLTEMAVFSCEAHNDKGLTVSKGVQINI
 KAIPSPTEVSIRNSTAHSILISWVPGFDGYSFNRNCISIQVKEADPLSNGSVMIFNTSALPHLYQIKQLQ
 ALANYSIGVSCMNEIGWSAVSPWILASTTEGAPSVAPLNVTVFLNESSDNVDIRWMPPTKQQDGELVGY
 RISHVWQSAGISKELLEEVGQNGSRARISVQVHNATCTVRIA AVTRGGVGPFSDPVKIFIPAAGWVDYAP
 SSTPAPGNADPVLIIFGFCGFIILIGLILYISLAIRKRVQETKFGNAFTEEDSELVVNYIAKKSFCRAI
 ELTLHSLGVSEELQNKLEDVVDRNLLILGKILGEGEFGSVMENLQKEDGTSKLVAVKTMKLDNSSQRE
 IEEFLSEAACMKDFSHPNVIRLLGVCIESSQGIKPMVILPFMKYGDHLTYLLYSRLETGPKHIPLQTL
 LKFMVDIALGMEYLNRNFLHRDLAARNCLRDDMTVCVADFGLSKKIYSGDYRQRIAKMPVKWIAIE
 SLADRVYTSKSDVWAFGVTMWEIATRGMPYPGVQNHMYDYLLHGHRLKQPEDCLDELVEIMYSCWRD
 PLDRPTFVSLRLQLEKLESPLDVRNQADVIYVNTQLLESSEGLAQGSTLAPLDLNDIPDSIIASCTPRA
 AISVVTAEVHDSKPHEGRYILNGGSEEWEDLTSAPSAAVTAEKNSVLPGERLVRNGVSWSHSSMLPLGSS
 LPDELLFADDSSEGSEVLM

SGPTRRRL**E**QKL**I**SEEDLAAND**I**LDYKDDDDK**V**

Restriction Sites:

SgfI-MluI

Cloning Scheme:



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 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).

RefSeq: [NP_006334](#)

RefSeq Size: 2997 bp

RefSeq ORF: 3000 bp

Locus ID: 10461

Cytogenetics: 2q13

Domains: pkinase, TyrKc, S_TKc, ig, IG, FN3

Protein Families: Druggable Genome, Protein Kinase, Transmembrane

MW: 109.9 kDa

Gene Summary: This gene is a member of the MER/AXL/TYRO3 receptor kinase family and encodes a transmembrane protein with two fibronectin type-III domains, two Ig-like C2-type (immunoglobulin-like) domains, and one tyrosine kinase domain. Mutations in this gene have been associated with disruption of the retinal pigment epithelium (RPE) phagocytosis pathway and onset of autosomal recessive retinitis pigmentosa (RP). [provided by RefSeq, Jul 2008]