

Product datasheet for **RC403243**

RET (NM_020975) Human Mutant ORF Clone

Product data:

Product Type:	Mutant ORF Clones
Product Name:	RET (NM_020975) Human Mutant ORF Clone
Mutation Description:	E251K
Affected Codon#:	251
Affected NT#:	751
Nucleotide Mutation:	RET Mutant (E251K), Myc-DDK-tagged ORF clone of Homo sapiens ret proto-oncogene (RET), transcript variant 2 as transfection-ready DNA
Effect:	Hirschsprung disease
Symbol:	RET
Synonyms:	CDHF12; CDHR16; HSCR1; MEN2A; MEN2B; MTC1; PTC; RET-ELE1
E. coli Selection:	Kanamycin (25 ug/mL)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
Tag:	Myc-DDK
ACCN:	NM_020975
ORF Size:	3342 bp
Restriction Sites:	SgfI-MluI
ORF Nucleotide Sequence:	>RC403243 representing NM_020975 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**GCGATCGCC**

ATGGCGAAGGCGACGTCCGGTGCCGCGGGGCTGCGTCTGCTGTTGCTGCTGCTGCCGCTGCTAGGCA
AAGTGGCATTGGGCTCTACTTCTCGAGGGATGCTTACTGGGAGAAGCTGTATGTGGACCAGGCGGCCGG
CACGCCCTTGCTGTACGTCCATGCCCTGCGGGACGCCCTGAGGAGGTGCCAGCTTCCGCTGGCCAG
CATCTCTACGGCACGTACCGCACACGGCTGCATGAGAACAAGTGGATCTGCATCCAGGAGGACACCGGCC
TCCTCTACCTTAACCGGAGCCTGGACCATAGCTCCTGGGAGAAGCTCAGTGTCCGCAACCGCGGCTTTCC
CCTGCTACCGTCTACCTCAAGGTCTTCTGTACCCACATCCCTTCGTGAGGGCGAGTGCCAGTGGCCA
GGCTGTGCCCGGTATACTTCTCCTTCTCAACACCTCCTTTCCAGCCTGCAGCTCCCTCAAGCCCCGGG



[View online »](#)

AGCTCTGCTTCCCAGAGACAAGGCCCTCCTCCGCATTGGGAGAACCGACCCCCAGGCACCTTCCACCA
GTTCCGCCTGCTGCTGTGCAGTTCTTGTGCCCAACATCAGCGTGGCCTACAGGCTCCTGGAGGGTGG
GGTCTGCCCTCCGCTGCGCCCCGGACAGCCTGGAGGTGAGCACGCGCTGGGCCCTGGACCGCGAGCAGC
GGGAGAAGTACGAGCTGGTGGCCGTGTGACCCGTGCACGCCGCGCGCGCAAGGAGGTGGTATGGTGCC
CTTCCCGGTGACCGTGTACGACGAGGACGACTCGGCGCCACCTTCCCGCGGGCGTGCACACCGCCAGC
GCCGTGGTGGAGTTCAAGCGGAAGGAGGACACCGTGGTGGCCACGCTGCTCCCGGGGACACCTGGGCCAGCA
TACCTGGATCAGGGGAGCTGGTGGCCGTTACACAAGCAGCCTGCTCCCGGGGACACCTGGGCCAGCA
GACCTTCCGGGTGGAACACTGGCCCAACGAGACCTCGGTCCAGGCCAACGGCAGCTTCGTGCGGGCGACC
GTACATGACTATAGGCTGGTTCTCAACCGGAACCTCTCCATCTCGGAGAACCGCACCATGACAGCTGGCGG
TGCTGGTCAATGACTCAGACTTCCAGGGCCAGGAGCGGGCGTCTCTTGTCTCACTTCAACGTGTCCGT
GCTGCCGGTACGCTGCACCTGCCAGTACCTACTCCCTCTCCGTGAGCAGGAGGGCTCGCCGATTTGCC
CAGATCGGAAAGTCTGTGTGAAAACCTGCCAGGCATTAGTGGCATCAACGTCCAGTACAAGCTGCATT
CCTCTGGTGCCAACTGCAGCACGCTAGGGTGGTACCTCAGCCGAGGACACCTCGGGATCCTGTTTGT
GAATGACACCAAGGCCCTGCGGCGGCCAAGTGTGCCAACTTACTACATGGTGGTGGCCACCGACCAG
CAGACCTTAGGCAGGCCAGGCCAGCTGCTTGAACAGTGGAGGGTCAATATGTGGCCGAGGAGCGCG
GCTGCCCCCTGTCTGTGAGTACGCAAGAGACGGCTGGAGTGTGAGGAGTGTGGCGGCCTGGGCTCCCC
AACAGGCAGGTGTGAGTGGAGGCAAGGAGATGGCAAAGGGATCACAGGAACTTCTCACCTGCTCTCCC
AGCACCAAGACCTGCCCGACGGCCACTGCGATGTTGTGGAGACCCAAGACATCAACATTTGCCCTCAGG
ACTGCCTCCGGGCGACATTGTTGGGGACACGAGCCTGGGGAGCCCCGGGGATTAAAGCTGGCTATGG
CACCTGCAACTGCTTCCCTGAGGAGGAGAAGTGCTTCTGCGAGCCGAAGACATCCAGGATCCACTGTGC
GACGAGCTGTGCCGACGGTGTGCGAGCCGCTGCTCTTCTCCTTATCGTCTCGGTGCTGCTGTCTG
CCTTCTGCATCCACTGCTACCACAAGTTTCCCAACAAGCCACCCATCTCCTCAGCTGAGATGACCTCCG
GAGGCCCGCCAGGCCCTCCCGGTGAGTACTCTCTCCGGTCCCGCCCGCCCTCGTGGACTCATTG
GAGAACCAGGTCTCCGTGGATGCTTCAAGATCCTGGAGGATCCAAGTGGGAATTCCTCGGAAGAACT
TGGTTCTTGGAAAACCTTAGGAGAAGGCAATTTGAAAAGTGGTCAAGGCAACGGCCTTCCATCTGAA
AGGCAGAGCAGGGTACACCACGGTGGCCGTGAAGATGCTGAAAGAGAACGCTCCCGAGTGAGCTTCGA
GACCTGCTGTGAGTTCACAGTCTGAAGCAGGTCAACCACCCACATGTGATCAAAATGATGGGGCT
GCAGCCAGGATGGCCCGCTCCTCCTCATCGTGGAGTACGCCAAATACGGCTCCCTGCGGGGCTTCTCCG
CGAGAGCCGAAAAGTGGGGCTGGCTACCTGGGAGTGGAGGCAGCCGCAACTCCAGCTCCCTGGACCAC
CCGGATGAGCGGGCCCTCACATGGGCGACCTCATCTCATTGCTGGCAGATCTCACAGGGATGCAGT
ATCTGGCCGAGATGAAGCTCGTTCATCGGGACTTGGCAGCCAGAAACATCCTGGTAGCTGAGGGCGGAA
GATGAAGATTTCCGATTTCCGGCTGTCCCGAGATGTTTATGAAGAGGATTCCTACGTGAAGAGGACCCAG
GGTCGGATTCAGTAAATGGATGGCAATTTGAATCCCTTTTTGATCATATCTACACCACGCAAAGTGATG
TATGGTCTTTGGTGTCTGCTGTGGGAGATCGTGACCCTAGGGGGAAACCCCTATCCTGGGATTCCTCC
TGAGCGGCTCTTCAACCTTCTGAAGACCGGCCACCGGATGGAGAGGCCAGACAACTGCAGCGAGGAGATG
TACCGCTGATGCTGCAATGCTGGAAGCAGGAGCCGACAAAAGGCCGGTGTGGCGGACATCAGCAAAG
ACCTGGAGAAGATGATGGTTAAGAGGAGAGACTACTTGGACCTTGGCGGTCCACTCCATCTGACTCCCT
GATTTATGACGACGGCCTCTCAGAGGAGGAGACACCGCTGGTGGACTGTAAATGCCCCCTCCCTCGA
GCCCTCCCTTCCACATGGATTGAAAACAACTCTATGGCATGTCAGACCCGAACCTGGCCGGAGAGATG
CTGTACCACTCAGAGAGCTGATGGCACTAACACTGGGTTTCCAAGATATCCAATGATAGTGTATATGC
TAACTGGATGCTTTCACCTCAGCGGCAAAATTAATGGACACGTTTGATAGT

AGCGGACCGACGCGTACGCGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
TGGATTACAAGGATGACGACGA TAAGGTTTAA

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_066124
RefSeq Size:	3342 bp
RefSeq ORF:	3345 bp
Locus ID:	5979
Cytogenetics:	10q11.21
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Endocytosis, Pathways in cancer, Thyroid cancer
MW:	122.5 kDa
Gene Summary:	This gene encodes a transmembrane receptor and member of the tyrosine protein kinase family of proteins. Binding of ligands such as GDNF (glial cell-line derived neurotrophic factor) and other related proteins to the encoded receptor stimulates receptor dimerization and activation of downstream signaling pathways that play a role in cell differentiation, growth, migration and survival. The encoded receptor is important in development of the nervous system, and the development of organs and tissues derived from the neural crest. This proto-oncogene can undergo oncogenic activation through both cytogenetic rearrangement and activating point mutations. Mutations in this gene are associated with Hirschsprung disease and central hypoventilation syndrome and have been identified in patients with renal agenesis. [provided by RefSeq, Sep 2017]