

## Product datasheet for SC127900

### RET (NM\_020630) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RET (NM_020630) Human Untagged Clone
Tag:	Tag Free
Symbol:	RET
Synonyms:	CDHF12; CDHR16; HSCR1; MEN2A; MEN2B; MTC1; PTC; RET-ELE1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC127900 sequence for NM_020630 edited (data generated by NextGen Sequencing)

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ATGGCGAAGGCGACGTCCGGTGCCGCGGGGCTGCGTCTGCTGTTGCTGCTGCTGCTGCCG
CTGCTAGGCAAAAGTGGCATTGGGCCTCTACTTCTCGAGGGATGCTTACTGGGAGAAGCTG
TATGTGGACCAAGCGCCGGCAGCCCTTGTGTACGTCCATGCCCTGCGGGACGCCCT
GAGGAGGTGCCAGCTTCCGCTGGGCCAGCATCTACGGCAGTACCGCACACGGCTG
CATGAGAACAACTGGATCTGCATCCAGGAGGACACCGGCCTCTACCTTAACCGGAGC
CTGGACCATAGCTCCTGGGAGAAGCTCAGTGTCCGCAACCGCGGCTTCCCTGCTCACC
GTCTACCTCAAGGTCTTCTGTACCCACATCCCTTCGTGAGGGCGAGTGCCAGTGGCCA
GGCTGTGCCCGGTATACTTCTCCTTCTTCAACACCTCCTTCCAGCCTGCAGTCCCTC
AAGCCCCGGGAGCTCTGCTTCCCAGAGACAAGGCCCTCCTCCGATTCCGGGAGAACCGA
CCCCCAGGCACCTTCCACCAAGTCCGCCTGCTGCCTGTGCAAGTCTTGTGCCCAACATC
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GCCGTGTGACCGTGCACGCCGGCGCGCGAGGAGGTGGTGTGGTGCCTTCCCGGTG
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CAGGCCAACGGCAGCTTCTGTGCGGGCGACCGTACATGACTATAGGCTGGTTCTCAACCGG
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CAGATCGGAAAGTCTGTGTGAAAAGTCCAGGCATTAGTGGCATCAACGTCCAGTAC
AAGCTGCATTCTCTGGTCCAAGTGCAGCACGCTAGGGGTGGTACCTCAGCCGAGGAC
ACCTCGGGGATCCTGTTGTGAATGACACCAAGGCCCTGCGGCGGCCAAGTGTGCCGAA
CTTCACTACATGGTGGTGGCCACCGACCAGCAGACCTTAGGCAGGCCAGGCCAGCTG

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CTTGTAACAGTGGAGGGGTGATATGTGGCCGAGGAGGCGGGCTGCCCCCTGTCCTGTGCA
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TGTGAGTGGAGGCAAGGAGATGGCAAAGGGATCACCAGGAACTTCTCCACCTGCTCTCCC
AGCACCAAGACCTGCCCCGACGGCCACTGCGATGTTGTGGAGACCAAGACATCAACATT
TGCCCTCAGGACTGCCTCCGGGGCAGCATTGTTGGGGGACACGAGCCTGGGGAGCCCCGG
GGGATTAAGCTGGCTATGGCACCTGCAACTGCTTCCCTGAGGAGGAGAAGTGCTTCTGC
GAGCCCCAAGACATCCAGGATCCACTGTGCGACGAGCTGTGCCGACGGTGATCGCAGCC
GCTGTCTCTTCTCCTTATCGTCTCGGTGCTGCTGTCTGCCTTCTGCATCCACTGCTAC
CACAAGTTTGCCACAAGCCACCCATCTCCTCAGCTGAGATGACCTTCCGGAGGCCCGCC
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CAGGTCAACCACCCACATGTCATCAAATGTATGGGGCTGCAGCCAGGATGGCCCGCTC
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CTGGTAGCTGAGGGGGCGGAAGATGAAGATTTGGGATTTCCGGCTTGTCCCGAGATGTTAT
GAAGAGGATTCCTACGTGAAGAGGAGCCAGGGTCCGATTCCAGTTAAATGGATGGCAATT
GAATCCCTTTTGTATCATATCTACACCACGCAAAGTGTATGGTCTTTTGGTGTCTCTG
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TTCAACCTTCTGAAGACCGGCCACCGGATGGAGAGGCCAGACAACCTGCAGCGAGGAGATG
TACCGCCTGATGCTGCAATGCTGGAAGCAGGAGCCGGACAAAAGCCGGTGTTCGCGAC
ATCAGCAAAGACCTGGAGAAGATGATGGTTAAGAGGAGAGACTACTTGGACCTTGCGGCG
TCCACTCCATCTGACTCCCTGATTTATGACGACGGCCTCTCAGAGGAGGAGACCCGCTG
GTGGACTGTAATAATGCCCCCTCCCTCGAGCCCTCCCTTCCACATGGATTGAAAACAA
CTCTATGGTAGAATTTCCCATGCATTTACTAGATTCTAG
    
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Clone variation with respect to NM\_020630.4  
 2071 g=>a;2307 t=>g

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_020630 unedited  
 CGGCCGGAATTCGGCACGAGGCCGAAGCAGGGCGCGCAGCAGCGCTGAGTGCCCCGAA  
 CGTGCGTCGCGCCCCAGTGTCCGTGCGTCCGCCGCGCCCCGGGCGGGATGGGGCGG  
 CAGACTGAGCGCCGACCCGCCATCCAGACCCGCGGCCCTAGCCGAGTCCCTCCAGCC  
 GTGGCCCCAGCGGCACGGGCGATGGCGAAGGCGACGTCCGGTCCCGCGGGGCTGCGTCT  
 GCTGTTGCTGCTGCTGCTGCCGCTGCTAGGCAAAGTGGCATTGGGCTCTACTTCTCGAG  
 GGATGCTTACTGGGAGAAGCTGTATGTGGACCAGGCGGCCGGCACGCNCTTGCTGTACGT  
 CCATGCCCTGCGGGACGCCCTGAGGAGGTGCCAGCTTCCGCTGGGCCAGCATCTCTA  
 CGGCACGTACCGCACACGGCTGCATGAGAACTGGATCTGCATNACAGGAGGACACCGG  
 GCCTCTTACCTTAACCGGAGCCTGGACCATAGCTCCTGGGAGAAGCTCAGTGTCCGCAA  
 CCGGGGCTTCCCTGCTCAGGGTACCTCAGGTCTTCTGTACCCAAATCCCTTCGTGAG  
 GCGGAGTGAATGGCCAGCTGGGGCCGGTTTACTTCTTCTTCAACAACCTCCTTTCA  
 GC

**Restriction Sites:** Please inquire  
**ACCN:** NM\_020630  
**Insert Size:** 4300 bp

<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_020630.3</a> , <a href="#">NP_065681.1</a>
<b>RefSeq Size:</b>	4161 bp
<b>RefSeq ORF:</b>	3219 bp
<b>Locus ID:</b>	5979
<b>UniProt ID:</b>	<a href="#">P07949</a>
<b>Cytogenetics:</b>	10q11.21
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transmembrane
<b>Protein Pathways:</b>	Endocytosis, Pathways in cancer, Thyroid cancer
<b>Gene Summary:</b>	<p>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]</p> <p>Transcript Variant: This variant (4) differs in the 3' UTR and coding region compared to variant 2. The resulting isoform (c) is shorter and has a distinct C-terminus compared to isoform a. This isoform is also known as Ret9.</p>