

Product datasheet for **SC126890**

TrkA (NTRK1) (NM_001012331) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TrkA (NTRK1) (NM_001012331) Human Untagged Clone
Tag:	Tag Free
Symbol:	TrkA
Synonyms:	MTC; p140-TrkA; TRK; Trk-A; TRK1; TRKA
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC126890 sequence for NM_001012331 edited (data generated by

NextGen Sequencing)

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ATGCTGCGAGGCGGACGGCGGGCAGCTTGGCTGGCACAGCTGGGCTGCGGGGCCGGGC
AGCCTGCTGGCTTGGCTGATACTGGCATCTGCGGGCGCCGACCCTGCCCGATGCCTGC
TGCCCCACGGCTCCTCGGGACTGCGATGCACCCGGATGGGGCCCTGGATAGCCTCCAC
CACCTGCCCGGCGCAGAGAACCTGACTGAGCTCTACATCGAGAACCAGCAGCATCTGCAG
CATCTGGAGCTCCGTGATCTGAGGGCCCTGGGGAGCTGAGAAACCTCACCATCGTGAAG
AGTGGTCTCCGTTTCGTGGCGCCAGATGCCTTCCATTTCACTCCTCGGCTCAGTCGCCTG
AATCTCTCCTTCAACGCTCTGGAGTCTCTCCTGGAAAACCTGTGCAGGGCCTCTCCTTA
CAGGAACTGGTCTGTGCGGGAAACCCTCTGCACTGTTCTTGTGCCCTGCGCTGGTACAG
CGCTGGGAGGAGGAGGGACTGGGCGGAGTGCCTGAACAGAAGCTGCAGTGTATGGGCAA
GGGCCCCTGCCACATGCCAATGCCAGCTGTGGTGTGCCACGCTGAAGGTCCAGGTG
CCCAATGCCTCGGTGGATGTGGGGACGACGTGCTGCTGCGGTGCCAGGTGGAGGGGCGG
GGCCTGGAGCAGGCCGGTGGATCCTCACAGAGCTGGAGCAGTCAGCCACGGTGTGAAA
TCTGGGGTCTGCCATCCCTGGGGCTGACCCTGGCCAATGTCACCAGTGACCTCAACAGG
AAGAACTTGACGTGCTGGGCAGAGAACGATGTGGGCCGGCAGAGGTCTCTGTTCAGGTC
AACGTCTCCTTCCCGCCAGTGTGCAGCTGCACACGGCGGTGGAGATGCCACACTGGTGC
ATCCCCTTCTGTGGATGGGCAGCCGGCACCGTCTCTGCGCTGGCTCTTCAATGGCTCC
GTGCTCAATGAGACCAGCTTCACTTCACTGAGTTCCTGGAGCCGGCAGCCAATGAGACC
GTGCGGCACGGGTGTCTGCGCCTCAACCAGCCCACCCAGTCAACAACGGCAACTACAGC
CTGCTGGCTGCCAACCCCTTTCGGCCAGGCCCTCCGCTCCATCATGGTGCCTTATGGAC
AACCCCTTCGAGTTCAACCCCGAGGACCCATCCCTGACACTAACAGCACATCTGGAGAC
CCGGTGGAGAAGAAGGACGAAACACCTTTTGGGGTCTCGGTGGCTGTGGGCTGGCCGTC
TTTGCCTGCCTCTTCTTCTACGCTGCTCCTTGTGCTCAACAAATGTGGACGGAGAAAC
AAGTTTGGGATCAACCGCCCGGCTGTGCTGGCTCCAGAGGATGGGCTGGCCATGTCCCTG
CATTTCATGACATTGGGTGGCAGCTCCCTGTCCCCACCGAGGGCAAAGGCTCTGGGCTC
CAAGGCCACATCATCGAGAACCACAATACTTCACTGATGCCTGTGTTCAACACATCAAG
CGCCGGGACATCGTGTCAAGTGGGAGCTGGGGGAGGGCGCCTTGGGAAGGTCTTCTT
GCTGAGTGCCACAACCTCCTGCCTGAGCAGGACAAGATGCTGGTGGCTGTCAAGGCACTG
AAGGAGGCGTCCGAGAGTGTCTCGGCAGGACTTCCAACGTGAGGCTGAGCTGCTCACCATG
CTGCAGCACACGACATCGTGCCTTCTTCCGGCTGTGCACCGAGGGCCGCCCTGCTC
ATGGTCTTTGAGTATATGCGGCACGGGGACCTCAACCGCTTCTCCGATCCCATGGACCT
GATGCCAAGCTGTGGCTGGTGGGGAGGATGTGGCTCCAGGCCCCCTGGGTCTGGGGCAG
CTGCTGGCCGTGGCTAGCCAGGTGCTGCGGGGATGGTGTACCTGGCGGGTCTGCATTTT
GTGCACCGGGACCTGGCCACACGCAACTGTCTAGTGGGCCAGGGACTGGTGGTCAAGATT
GGTGATTTTGGCATGAGCAGGGATATCTACAGCACCGACTATTACCGTGTGGGAGGCCGC
ACCATGCTGCCATTTCGCTGGATGCCGCCGAGAGCATCCTGTACCGTAAGTTCACCACC
GAGAGCGACGTGTGGAGCTTTCGGCGTGGTGTCTGGGAGATCTTACCTACGGCAAGCAG
CCCTGGTACCAGCTCTCCAACACGGAGGCAATCGACTGCATCACGCAGGGACGTGAGTTG
GAGCGGCCACGTGCCTGCCACCAGAGGTCTACGCCATCATGCGGGGCTGCTGGCAGCGG
GAGCCCCAGCAACGCCACAGCATCAAGGATGTGCACGCCCGGCTGCAAGCCCTGGCCAG
GCACCTCCTGTCTACCTGGATGTCTGGGCTAG

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Clone variation with respect to NM_001012331.1

787 g=>t;1656 g=>a

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001012331 unedited
 TGGGNNAGGAGNNNATGAGTCACATTTTGAATACGACTCACTATANTGCGGCCGCATGC
 TGCGAGGCGGACGGCGCGGGCAGCTTGGCTGGCACAGCTGGGCTGCGGGGCGGGCAGCC
 TGCTGGCTTGGCTGATACTGGCATCTGCGGGCGCCGCACCCTGCCCGATGCCTGCTGCC
 CCCACGGCTCCTCGGGACTGCGATGCACCCGGGATGGGGCCCTGGATAGCCTCCACCACC
 TGCCCGGCGCAGAGAACCTGACTGAGCTCTACATCGAGAACCCAGCAGCATCTGCAGCATC
 TGGAGCTCCGTGATCTGAGGGGCTGGGGGAGCTGAGAAACCTCACCATCGTGAAGAGTG
 GTCTCCGTTTCGTGGCGCCAGATGCCTTCCATTTCACTCCTCGGCTCAGTCGCCTGAATC
 TCTCCTCAACGCTCTGGAGTCTCTCCTGAAAACTGTGCAGGGCCTCTCCTTACAGG
 AACTGGTCTGTGCGGGAACCTCTGCACTGTTCTTGTGCCCTGCGCTGGCTACAGCGCT
 GGGAGGAGGGGACTGGGCGGAGTGCCTGAACAGAAGCTGCAGTGCATGGGCAAGGGC
 CCCTGGCCACATGCCCAATGCCAGCTGTGGTGTGCCACGCTGAAGGTCCAGGTGCCCA
 ATGCTCGGTGGATGTGGNGACGACGTGCTGCTGCGGTGCCAGGTGGAGGGGCGGGGCC
 TGGAGCANNGCCGCTGGATCCTCACAGAGCTGGAGCAGTCAGCCACGGTATGAAATCTG
 GNGGTCTTGCATCCNTGGNGT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001012331 unedited
 TGGGNNATGTGNNTTTGCATGGGTGCAACTTCAGGGCCGGAGACGCACTGGGGAGGGGT
 CACAGGGATGCCACCCGGGATCTGTTTCAGGAAACAGCTATGACCGCGGCCCAATCTAGA
 GCGTCACGAGCTAGCCCAGGACATCCAGGTAGACAGGAGGTGCCTGGCCAGGGCTTGCA
 GCCGGCGTGCACATCCTTGATGCTGTGGCGTTGCTGGGGCTCCCGCTGCCAGCAGCCCC
 GCATGATGGCGTAGACCTCTGGTGGCAGGCACGTGGCCGCTCCAACCTCACGTCCCTGCG
 TGATGCAGTCGATTGCCTCCGTGTTGGAGAGCTGGTACCAGGGCTGCTTGCCGTAGGTGA
 AGATCTCCAGAGCACCCAGCCGAAGCTCCACACGTCGCTCTCGGTGGTGAACCTACGGT
 ACAGGATGCTCTCGGGCGGCATCCAGCGAATGGGCAGCATGGTGCAGCCTCCACACGGT
 AATAGTCGGTGTGTAGATATCCCTGCTCATGCCAAAATCACCAATCTTGACCACAGTC
 CCTGGCCCACTAGACAGTTGCGTGTGGCCAGGTCCCGGTGCACAAAATGCAGACCCGCCA
 GGTACACCATCCCCGACGACCTGGCTAGCCACGGCCAGCAGCTGCCCCAGACCCAGGG
 GGCCTGGAGCCACATCCTCCCCACCAGCCAGCAGCTTGGCATCAGGTCCATGGGATCGGA
 GGAAGCGGTTGAGGTCCCGTGCCGCATATACTCAAAGACCATGAGCAGGNGCGGCCCT
 CGGTGCAGACGCCGAAAAGCGCAG

Restriction Sites:

Please inquire

ACCN:

NM_001012331

Insert Size:

2300 bp

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](#)

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:	<ol style="list-style-type: none">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:	<u>NM_001012331.1</u> , <u>NP_001012331.1</u>
RefSeq Size:	2647 bp
RefSeq ORF:	2373 bp
Locus ID:	4914
UniProt ID:	<u>P04629</u>
Cytogenetics:	1q23.1
Protein Families:	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways:	Apoptosis, Endocytosis, MAPK signaling pathway, Neurotrophin signaling pathway, Pathways in cancer, Thyroid cancer
Gene Summary:	<p>This gene encodes a member of the neurotrophic tyrosine kinase receptor (NTRK) family. This kinase is a membrane-bound receptor that, upon neurotrophin binding, phosphorylates itself and members of the MAPK pathway. The presence of this kinase leads to cell differentiation and may play a role in specifying sensory neuron subtypes. Mutations in this gene have been associated with congenital insensitivity to pain, anhidrosis, self-mutilating behavior, cognitive disability and cancer. Alternate transcriptional splice variants of this gene have been found, but only three have been characterized to date. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (1) lacks an internal, in-frame exon, compared to variant 2, resulting in a shorter isoform (1) lacking an internal segment compared to isoform 2.</p>