

## Product datasheet for **RC600034**

### TrkA (NTRK1) (NM\_001012331) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TrkA (NTRK1) (NM_001012331) Human Tagged ORF Clone
Tag:	DDK-His
Symbol:	TrkA
Synonyms:	MTC; p140-TrkA; TRK; Trk-A; TRK1; TRKA
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5-DDK-His (PS100068)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RC600034 representing leader sequence plus the extracellular domain region of NM\_001012331

Red=Cloning site Blue=ORF Green=Tags(s)

GTAATACGACTCACTATAGGGCGGCCGGAATTCGTGCGACTGGATCTGGTACCGAGGAGATCCGCCGCCG  
CGATCGCC

ATGCTGCGAGGCGGACGGCGCGGGCAGCTTGGCTGGCAGCAGTGGGCTGCGGGGGCCGGGAGCCTGCTGG  
CTTGGCTGATACTGGCATCTGCGGGCGCCGACCTGCCCGATGCCTGTGCCCCACGGCTCCTCGGG  
ACTGCGATGCACCCGGGATGGGGCCCTGGATAGCCTCCACCACCTGCCGGCGCAGAGAACCTGACTGAG  
CTCTACATCGAGAACCAGCAGCATCTGCAGCATCTGGAGCTCCGTGATCTGAGGGGCTGGGGGAGCTGA  
GAAACCTCACCATCGTGAAGAGTGGTCTCCGTTTCGTGGCGCCAGATGCCTTCCATTTCACTCCTCGGT  
CAGTCGCCTGAATCTCTCCTTCAACGCTCTGGAGTCTCTCCTGGAAAAGTGTGCAGGGGCTCTCCTTA  
CAGGAAGTGGTCTGTCGGGAACCTCTGCACGTGTTCTGTGCCCTGCGCTGGTACAGCGCTGGGAGG  
AGGAGGGACTGGGCGGAGTGCCTGAACAGAAGCTGCAGTGTGATGGGCAAGGGCCCTGGCCACATGCC  
CAATGCCAGCTGTGGTGTGCCACGCTGAAGGTCCAGGTGCCAATGCCTCGGTGGATGTGGGGGACGAC  
GTGCTGTGCGGTGCCAGGTGGAGGGGGCGGGCCTGGAGCAGGCCGGCTGGATCCTCACAGAGCTGGAGC  
AGTCAGCCACGGTGTGAAATCTGGGGTCTGCCATCCCTGGGGTGCACCTGGCCAATGTACCCAGTGA  
CCTCAACAGGAAGAAGCTGACGTGCTGGGCAGAGAACGATGTGGGCCGGGAGAGTCTCTGTTCAGGTC  
AACGTCTCCTCCCGCCAGTGTGCAGCTGCACACGGCGGTGGAGATGCACCACTGGTGCATCCCCTTCT  
CTGTGGATGGGACGGCGCACCGTCTCTGCGTGGCTCTCAATGGTCCGTGCTCAATGAGACCAGCTT  
CATCTTCACTGAGTTCCTGGAGCCGGCAGCCAAAGAGACCGTGGGACGGGTGTCTGCGCTCAACCAG  
CCCACCCAGTCAACAACGGCAACTACACGCTGCTGGTGCACCCCTTCGGCCAGGCTCCGCTCCCA  
TCATGGTGCCTTCATGGACAACCCCTTTCGAGTTCAACCCCGAGGACCCCATCCCTGACACTAACAGCAC  
ATCTGGAGACCCGGTGGAGAAGAAGGACGAAACACCTTTTGGGGTCTCGGTGGTGTGGG

ACGCGTTCAGGCGACTACAAGGATGACGACGATAAGGGATCTCATCATCACCATCACCATTAATGAGATC  
TGGTACCGATATCAAGCTTGTGACTCTAGA

**Protein Sequence:**

>RC600034 representing signal peptide plus the extracellular domain region of NM\_001012331

Red=Cloning sites Green= DDK and 6XHIS Tags

MLRGGRRQLGWHSWAAGPGSLLAWLILASAGAAPCPDACCPHGSSGLRCTRDLGALDSLHHLPGAENLTE  
LYIENQHLQHLELRDLRGLGELRNLTIVKSGLRFVAPDAFHFTPRLSRLNLSFNALESLSWKTVQGLSL  
QELVLSGNPLHCSCALRWLQRWEEELGGVPEQKLQCHGQPLAHMPNASCVPKLVQVPNASVDVGGD  
VLLRQCVEGRGLEQAGWILTELEQSATVMKSGGLPSLGLTLANVTSDLNRKNVTCWAENDVGRAEVSQV  
NVSFPASVQLHTAVEMHHWCIPFSVDGQPAPSLRWLFNGSVLNETSFIFTEFLEPAANETVRHGCLRNLQ  
PTHVNNNGNYTLAANPFQASASIMAAFMDNPFEPEDPIPDTNSTSGDPVEKKDETPFGVSVAVG

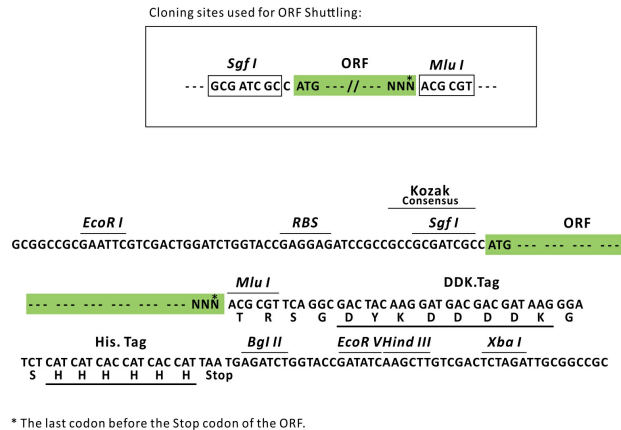
TRSGTRSGDYKDDDDKGSHHHHHH

**Chromatograms:**

[https://cdn.origene.com/chromatograms/ja1921\\_e02.zip](https://cdn.origene.com/chromatograms/ja1921_e02.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001012331

**ORF Size:** 1251 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](mailto: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 extra cellular domain of the protein 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\\_001012331.1](#), [NP\\_001012331.1](#)

RefSeq Size:	2647 bp
RefSeq ORF:	2373 bp
Locus ID:	4914
UniProt ID:	<a href="#">P04629</a>
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
MW:	45.1 kDa
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>