

Product datasheet for **RC600033**

TrkA (NTRK1) (NM_002529) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TrkA (NTRK1) (NM_002529) 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:

>RC600033 representing leader sequence plus the extracellular domain region of NM_002529

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

GTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCTGGTACCGAGGAGATCCGCCGCCG
CGATCGCC

ATGCTGCGAGGCGGACGGCGCGGGCAGCTTGGCTGGCACAGCTGGGCTGCGGGGCGGGCAGCCTGCTGG
CTTGGCTGATACTGGCATCTGCGGGCGCCGACCCCTGCCCGATGCCTGTGCCCCACGGCTCCTCGGG
ACTGCGATGCACCCGGGATGGGGCCTGGATAGCCTCCACCACCTGCCCGGCGCAGAGAACCTGACTGAG
CTCTACATCGAGAACCAGCAGCATCTGCAGCATCTGGAGCTCCGTGATCTGAGGGGCTGGGGGAGCTGA
GAAACCTCACCATCGTGAAGAGTGGTCTCCGTTTCGTGGCGCCAGATGCCTTCCATTTCACTCCTCGGT
CAGTCGCCTGAATCTCTCCTTCAACGCTCTGGAGTCTCTCCTGGAAAAGTGTGCAGGGCCTCTCCTTA
CAGGAAGTGGTCTGTCGGGAACCTCTGCACGTCTTGTGCCCTGCGCTGGTACAGCGCTGGGAGG
AGGAGGGACTGGGCGGAGTGCCTGAACAGAAGCTGCAGTGTGATGGGCAAGGGCCCTGGCCACATGCC
CAATGCCAGCTGTGGTGTGCCACGCTGAAGGTCCAGGTGCCAATGCCTCGGTGGATGTGGGGGACGAC
GTGCTGCTGCGGTGCCAGGTGGAGGGGCGGGCCTGGAGCAGGCCGGCTGGATCCTCACAGAGCTGGAGC
AGTCAGCCACGGTGTGAAATCTGGGGTCTGCCATCCCTGGGGCTGACCTGGCCAATGTACCAAGTGA
CCTCAACAGGAAGAAGTGTGACGTGCTGGGCAGAGAACGATGTGGGCCGGGAGAGTCTCTGTTCAGGTC
AACGTCTCCTCCCGCCAGTGTGCAGCTGCACACGGCGGTGGAGATGCACCACTGGTGCATCCCCTTCT
CTGTGGATGGGACGCGGCACCGTCTCTGCGTGGCTCTCAATGGTCCGTGCTCAATGAGACCAGCTT
CATCTTCACTGAGTTCCTGGAGCCGGCAGCCAAAGAGACCGTGGCAGCGGTGTCTGCGCTCAACCAG
CCCACCCAGTCAACAACGGCAACTACACGCTGCTGGCTGCCAACCCCTTCGGCCAGGCCCTCCGCCTCCA
TCATGGTGCCTTCATGGACAACCCCTTTCGAGTTCAACCCGAGGACCCCATCCCTGTCTCCTTCTCGCC
GGTGGACACTAACAGCAGCATCTGGAGACCCGGTGGAGAAGAAGGACGAAACACCTTTTGGGTCTCGGTG
GCTGTGGGC

ACGCGTTCAGGCGACTACAAGGATGACGACGATAAGGGATCTCATCATCACCATCACCATTAATGAGATC
TGGTACCGATATCAAGCTTGTGACTCTAGA

Protein Sequence:

>RC600033 representing signal peptide plus the extracellular domain region of NM_002529

Red=Cloning sites Green= DDK and 6XHIS Tags

MLRGGRRGQLGWHWSAAGPGSLLAWLILASAGAAPCPDACCPHGSSGLRCTRDLGALDSLHHLPGAENLTE
LYIENQQHLQHLELRDLRGLGELRNLTIKSGLRFVAPDAFHFTPRLSRLNLSFNALESLSWKTVQGLSL
QELVLSGNPLHCSCALRWLQRWEEELGGVPEQKLQCHGQGPLAHMPNASCVPTLKVQVPNASVDVGD
VLLRRCQVEGRGLEQAGWILTELEQSATVMKSGGLPSLGLTLANVTDLNRKNVTCWAENDVGRAEVSQV
NVSFPAASVQLHTAVEMHHCIPFSVDGQPAPSLRWLFNGSVLNETSFIFTEFLEPAANETVRHGCLRLNQ
PTHVNNGNITLLAANPFQASASIMAAFMDNPFEPEDPIPVSFSPVDNTSTSGDPVEKKDETDFGVS
AVG

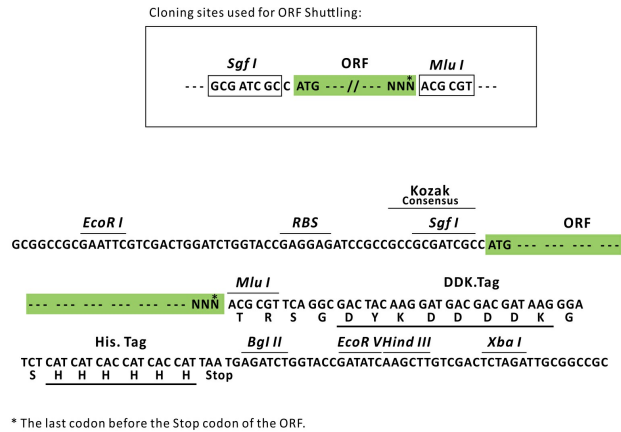
TRSGTRSGDYKDDDDKGSHHHHHH

Chromatograms:

https://cdn.origene.com/chromatograms/mk8117_e11.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_002529

ORF Size: 1269 bp

OTI Disclaimer: 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_002529.3](#), [NP_002520.2](#)

RefSeq Size: 2663 bp

RefSeq ORF: 2391 bp

Locus ID: 4914

UniProt ID: [P04629](#)

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:	45.8 kDa
Gene Summary:	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]