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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)

GTAATACGACTCACTATAGGGCGGCCGCGAATTCGTCGACTGGATCTGGTACCGAGGAGATCCGCCGCCG
CGATCGCC

ATGCTGCGAGGCGGACGGCGCGGGCAGCTTGGCTGGCACAGCTGGGCTGCGGGGCCGGGCAGCCTGCTGG
CTTGGCTGATACTGGCATCTGCGGGCGCCGCACCCTGCCCCGATGCCTGCTGCCCCCACGGCTCCTCGGG
ACTGCGATGCACCCGGGATGGGGCCCTGGATAGCCTCCACCACCTGCCCGGCGCAGAGAACCTGACTGAG
CTCTACATCGAGAACCAGCAGCATCTGCAGCATCTGGAGCTCCGTGATCTGAGGGGCCTGGGGGAGCTGA
GAAACCTCACCATCGTGAAGAGTGGTCTCCGTTTCGTGGCGCCAGATGCCTTCCATTTCACTCCTCGGCT
CAGTCGCCTGAATCTCTCCTTCAACGCTCTGGAGTCTCTCTCCTGGAAAACTGTGCAGGGCCTCTCCTTA
CAGGAACTGGTCCTGTCGGGGAACCCTCTGCACTGTTCTTGTGCCCTGCGCTGGCTACAGCGCTGGGAGG
AGGAGGGACTGGGCGGAGTGCCTGAACAGAAGCTGCAGTGTCATGGGCAAGGGCCCCTGGCCCACATGCC
CAATGCCAGCTGTGGTGTGCCCACGCTGAAGGTCCAGGTGCCCAATGCCTCGGTGGATGTGGGGGACGAC
GTGCTGCTGCGGTGCCAGGTGGAGGGGCGGGGCCTGGAGCAGGCCGGCTGGATCCTCACAGAGCTGGAGC
AGTCAGCCACGGTGATGAAATCTGGGGGTCTGCCATCCCTGGGGCTGACCCTGGCCAATGTCACCAGTGA
CCTCAACAGGAAGAACGTGACGTGCTGGGCAGAGAACGATGTGGGCCGGGCAGAGGTCTCTGTTCAGGTC
AACGTCTCCTTCCCGGCCAGTGTGCAGCTGCACACGGCGGTGGAGATGCACCACTGGTGCATCCCCTTCT
CTGTGGATGGGCAGCCGGCACCGTCTCTGCGCTGGCTCTTCAATGGCTCCGTGCTCAATGAGACCAGCTT
CATCTTCACTGAGTTCCTGGAGCCGGCAGCCAATGAGACCGTGCGGCACGGGTGTCTGCGCCTCAACCAG
CCCACCCACGTCAACAACGGCAACTACACGCTGCTGGCTGCCAACCCCTTCGGCCAGGCCTCCGCCTCCA
TCATGGCTGCCTTCATGGACAACCCTTTCGAGTTCAACCCCGAGGACCCCATCCCTGACACTAACAGCAC
ATCTGGAGACCCGGTGGAGAAGAAGGACGAAACACCTTTTGGGGTCTCGGTGGCTGTGGGC

ACGCGTTCAGGCGACTACAAGGATGACGACGATAAGGGATCTCATCATCACCATCACCATTAATGAGATC
TGGTACCGATATCAAGCTTGTCGACTCTAGA

Protein Sequence:

>RC600034 representing signal peptide plus the extracellular domain region of NM_001012331
Red=Cloning sites Green= DDK and 6XHIS Tags

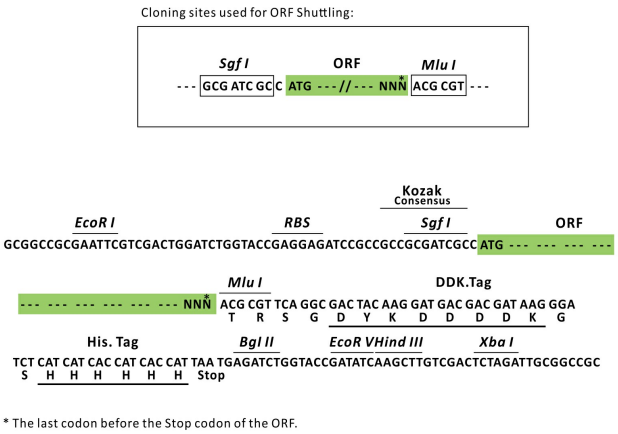
MLRGGRRGQLGWHSWAAGPGSLLAWLILASAGAAPCPDACCPHGSSGLRCTRDGALDSLHHLPGAENLTE
LYIENQQHLQHLELRDLRGLGELRNLTIVKSGLRFVAPDAFHFTPRLSRLNLSFNALESLSWKTVQGLSL
QELVLSGNPLHCSCALRWLQRWEEEGLGGVPEQKLQCHGQGPLAHMPNASCGVPTLKVQVPNASVDVGDD
VLLRCQVEGRGLEQAGWILTELEQSATVMKSGGLPSLGLTLANVTSDLNRKNVTCWAENDVGRAEVSVQV
NVSFPASVQLHTAVEMHHWCIPFSVDGQPAPSLRWLFNGSVLNETSFIFTEFLEPAANETVRHGCLRLNQ
PTHVNNGNYTLLAANPFGQASASIMAAFMDNPFEFNPEDPIPDTNSTSGDPVEKKDETPFGVSVAVG

TRSGTRSGDYKDDDDKGSHHHHHH

Chromatograms: https://cdn.origene.com/chromatograms/ja1921_e02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF.

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 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.

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_001012331.1, NP_001012331.1
RefSeq Size:	2647 bp
RefSeq ORF:	2373 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:	45.1 kDa
Gene Summary:	This gene encodes a member of the neurotrophic tyrosine kinase receptor (NTKR) 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]