

## Product datasheet for **RC213091**

### 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:	Myc-DDK
Symbol:	TrkA
Synonyms:	MTC; p140-TrkA; TRK; Trk-A; TRK1; TRKA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC213091 representing NM\_001012331  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCTGCGAGGCGGACGGCGCGGCAGCTTGGCTGGCACAGCTGGGCTGCGGGGCCGGGCAGCCTGCTGG  
 CTTGGCTGATACTGGCATCTGCGGGCGCCGACCCCTGCCCGATGCCTGCTGCCCCACGGCTCCTCGGG  
 ACTGCGATGCACCCGGGATGGGGCCCTGGATAGCCTCCACCACCTGCCCGCGCAGAGAACCTGACTGAG  
 CTCTACATCGAGAACCAGCAGCATCTGCAGCATCTGGAGCTCCGTGATCTGAGGGGCTGGGGGAGCTGA  
 GAAACCTCACCATCGTGAAGAGTGGTCTCCGTTTCGTGGCGCCAGATGCCTTCCATTTCACTCCTCGGT  
 CAGTCGCCTGAATCTCTCCTTCAACGCTCTGGAGTCTCTCTCTGGAAAACCTGTGCAGGGCCTCTCCTTA  
 CAGGAAGTGGTCTGTCGGGAACCCCTCTGCAGTGTCTGTGCCCTGCGCTGGTACAGCGCTGGGAGG  
 AGGAGGGACTGGCGGAGTGCCTGAACAGAAGCTGCAGTGTATGGCAAGGGCCCTGGCCACATGCC  
 CAATGCCAGCTGGTGTGCCACGCTGAAGGTCCAGGTGCCAATGCCCTCGGTGGATGTGGGGACGAC  
 GTGCTGCTGCGGTGCCAGGTGGAGGGCGGGGCCCTGGAGCAGGCCGGCTGGATCCTCACAGAGCTGGAGC  
 AGTCAGCCACGGTGTAAATCTGGGGTCTGCCATCCCTGGGGTGTACCTGGCCAATGTACCCAGTGA  
 CCTCAACAGGAAGAACTTACGCTGCTGGGCAGAGAACGATGTGGGCCGGGCAGAGGTCTCTGTTACGGTC  
 AACGTCTCCTTCCCGCCAGTGTGCAGCTGCACACGGCGGTGGAGATGCACCACTGGTGCATCCCCTTCT  
 CTGTGGATGGGCAGCCGGCACCGTCTCTGCGCTGGCTCTTCAATGGTCCGTGCTCAATGAGACCAGCTT  
 CATCTTCACTGAGTTCCTGGAGCCGGCAGCCAATGAGACCGTGGCGCACGGGTGTCTGCGCCTCAACCAG  
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 TCATGGCTGCCTCATGGACAACCCCTTTCGAGTTCACCCCGAGGACCCATCCCTGCATCAACAGC  
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 TTTGCCTGCCTCTTCTTCTACGCTGCTCCTTGTGCTCAACAAATGTGGACGGAGAAACAGTTTGGGA  
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 CAAGGCACTGAAGGAGGCGTCCGAGAGTGTCTGGCAGGACTTCCAACGTGAGGCTGAGCTGCTACCATG  
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 AGGGACTGGTGGTCAAGATTGGTGATTTTGGCATGAGCAGGGATATCTACAGCACCGACTATTACCGTGT  
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 GAGAGCGACGTGTGGAGCTTCCGCGTGGTGTCTGGGAGATCTTACCTACGGCAAGCAGCCCTGGTACC  
 AGCTCTCAACACGGAGGCAATCGACTGCATCACGCAGGGACGTGAGTTGGAGCGGCCACGTGCCTGCC  
 ACCAGAGGTCTACGCCATCATGCGGGGCTGTGGCAGCGGGAGCCCCAGCAACGCCACAGCATCAAGGAT  
 GTGCACGCCGGCTGCAAGCCCTGGCCAGGCACCTCTGTCTACCTGGATGCTCTGGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTAA

**Protein Sequence:** >RC213091 representing NM\_001012331  
Red=Cloning site Green=Tags(s)

MLRGGRRQLGWHSWAAGPGSLLAWLILASAGAAPCPDACCPHGSSGLRCTR DGALDSLHHLPGAENL TE  
LYIENQQHLQHLELRDLRGLGELRNLTIVKSGLRFVAPDAFHFTPRLSRLNLSFNAESLSWKTVQGLSL  
QELVLSGNPLHCSCALRWLQRWEEEGGGVPEQKLQCHGQGPLAHMPNASC GVPTLKVQVPNASVDVGD  
VLLRCQVEGRGLEQAGWILTELEQSATVMKSGGLPSLGLTLANVTSDLNRKNLTCWAENDVGRAEVSQV  
NVSFPASVQLHTAVEMHHWCIPFSVDGQPAPSLRWLFNGSVLNETSFIFFLEPAANETVRHGCLRINQ  
PTHVNNNGNYTLAANPFQASASIMAAFMDNPFEPEDPIPDTNSTSGDPVEKKDET PFGVSVAVGLAV  
FACLFLSTLLLVLNKCGRRNKFGINRPAVLAPEDGLAMSLHFMTLGGSSLSPTTEGKSGLQGHIIENPQY  
FSDACVHHIKRRDIVLKWELGEGAFGKVF LAECHNLLPEQDKMLVAVKALKEASE SARQDFQREALLTM  
LQHQHIVRFFGVCTEGRPLL MVFEYMRHGDLNRFLRSHGPDAKLLAGGEDVAPGPLGLGQLLAVASQVAA  
GMVYLAGLHFVHRDLATRNCLVGQGLVVKIGDFGMSRDIYSTDYRVGGRTMLPIRWMPPE SILYRKFTT  
ESDVVSFGVVLWEIFTYKQPWYQLSNTEAIDCITQGRELERPRACPPEVYAIMRGCWQREPQRHSIKD  
VHARLQALAQAPPVYLDVLG

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg2780\\_b05.zip](https://cdn.origene.com/chromatograms/mg2780_b05.zip)

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001012331

**ORF Size:** 2370 bp

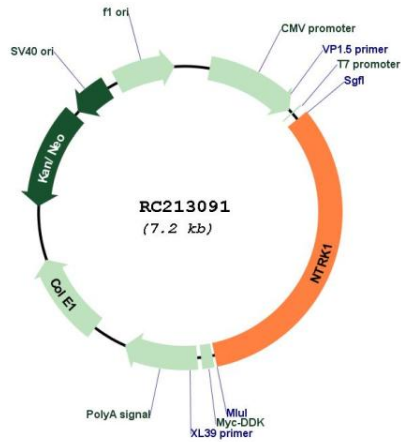
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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 complete ORF with an expression tag. Expression varies depending on the nature of the gene.

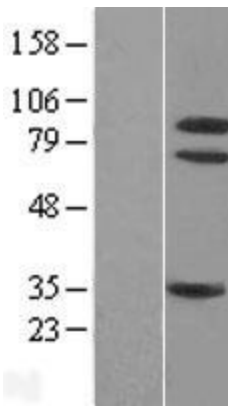
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_001012331.1</u> , <u>NP_001012331.1</u>
<b>RefSeq Size:</b>	2647 bp
<b>RefSeq ORF:</b>	2373 bp
<b>Locus ID:</b>	4914
<b>UniProt ID:</b>	<u>P04629</u>
<b>Cytogenetics:</b>	1q23.1
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transmembrane
<b>Protein Pathways:</b>	Apoptosis, Endocytosis, MAPK signaling pathway, Neurotrophin signaling pathway, Pathways in cancer, Thyroid cancer
<b>MW:</b>	86.7 kDa
<b>Gene Summary:</b>	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]

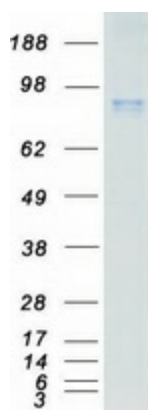
Product images:



Circular map for RC213091



Western blot validation of overexpression lysate (Cat# [LY423326]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213091 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NTRK1 protein (Cat# [TP313091]). The protein was produced from HEK293T cells transfected with NTRK1 cDNA clone (Cat# RC213091) using MegaTran 2.0 (Cat# [TT210002]).