

Product datasheet for **RG213047**

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:	TurboGFP
Symbol:	TrkA
Synonyms:	MTC; p140-TrkA; TRK; Trk-A; TRK1; TRKA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide
Sequence:**

>RG213047 representing NM_002529
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGCGAGGCGGACGGCGCGGCAGCTTGGCTGGCACAGCTGGGCTGCGGGGCCGGGCAGCCTGCTGG
 CTTGGCTGATACTGGCATCTGCGGGCGCCGACCCCTGCCCGATGCCTGCTGCCCCACGGCTCCTCGGG
 ACTGCGATGCACCCGGGATGGGGCCCTGGATAGCCTCCACCACCTGCCCGCGCAGAGAACCTGACTGAG
 CTCTACATCGAGAACCAGCAGCATCTGCAGCATCTGGAGCTCCGTGATCTGAGGGGCTGGGGGAGCTGA
 GAAACCTCACCATCGTGAAGAGTGGTCTCCGTTTCGTGGCGCCAGATGCCTTCCATTTCACTCCTCGGT
 CAGTCGCCTGAATCTCTCCTTCAACGCTCTGGAGTCTCTCTCTGGAAAACCTGTGCAGGGCCTCTCCTTA
 CAGGAAGTGGTCTGTCGGGAACCTCTGCAGTGTCTGTGCCCTGCGCTGGTACAGCGCTGGGAGG
 AGGAGGGACTGGCGGAGTGCCTGAACAGAAGCTGCAGTGTATGGCAAGGGCCCTGGCCACATGCC
 CAATGCCAGCTGGTGTGCCACGCTGAAGGTCCAGGTGCCAATGCCCTCGGTGGATGTGGGGACGAC
 GTGCTGCTGCGGTGCCAGGTGGAGGGCGGGGCCCTGGAGCAGGCCGGCTGGATCCTCACAGAGCTGGAGC
 AGTCAGCCACGGTGTAAATCTGGGGTCTGCCATCCCTGGGGTGCACCTGGCCAATGTACCCAGTGA
 CCTCAACAGGAAGAAGCTGACGTGCTGGGCAGAGAACGATGTGGGCCGGGCAGAGGTCTCTGTTCAAGTC
 AACGTCTCCTTCCCGCCAGTGTGCAGCTGCACACGGCGGTGGAGATGCACCACTGGTGCATCCCCTTCT
 CTGTGGATGGGCAGCCGGCACCGTCTCTGCGCTGGCTCTCAATGGTCCGTGCTCAATGAGACCAGCTT
 CATCTTCACTGAGTTCCTGGAGCCCGCAGCCAATGAGACCGTGCAGCACGGGTGTCTGCGCTCAACCAG
 CCCACCCAGTCAACAACGGCAACTACAGCTGCTGGCTGCCAACCCCTTCGGCCAGGCCCTCCGCTCCA
 TCATGGCTGCCTTCATGGACAACCCCTTTCAGAGTTCACCCCGAGGACCCCATCCCTGTCTCCTTCTCGCC
 GGTGGACACTAACAGCACATCTGGAGACCCGGTGGAGAAGAAGGACGAAACACCTTTTGGGGTCTCGGTG
 GCTGTGGGCTGCGCGTCTTTCCTGCTGCTCTTCTTTCTACGCTGCTCCTGTGCTCAACAAATGTGGAC
 GGAGAAACAAGTTTGGGATCAACCGCCCGGCTGTGCTGGCTCCAGAGGATGGGCTGGCCATGTCCCTGCA
 TTTTCATGACATTGGGTGGCAGCTCCCTGTCCCCACCGAGGGCAAAGGCTCTGGGCTCCAAGGCCACATC
 ATCGAGAACCACAATACTTCAGTGTGCTGTGTTACCACATCAAGCGCCGGGACATCGTGTCAAGT
 GGGAGCTGGGGAGGGCGCCTTTGGGAAGGTCTCCTTGTGAGTGCCACAACCTCCTGCCTGAGCAGGA
 CAAGATGCTGGTGGCTGTCAAGGCACTGAAGGAGGCGTCCGAGAGTGTCTGGCAGGACTTCCAGCGTGA
 GCTGAGCTGCTACCATGCTGCAGCACCAGCACATCGTGGCTTCTTCGGCGTCTGCACCGAGGGCCGCC
 CCCTGCTCATGGTCTTTGAGTATATGCGGCACGGGGACCTCAACCGCTTCTCCGATCCCATGGACCTGA
 TGCCAAGCTGCTGGTGGTGGGAGGATGTGGCTCCAGGCCCCCTGGGTCTGGGGCAGCTGCTGGCCGTG
 GCTAGCCAGGTCGCTGCGGGGATGGTGTACCTGGCGGGTCTGCATTTTGTGCACCGGGACCTGGCCACAC
 GCAACTGTCTAGTGGCCAGGGACTGGTGGTCAAGATTGGTGATTTTGGCATGAGCAGGGATATCTACAG
 CACCGACTATTACCGTGTGGGAGGCCGACCATGCTGCCATTGCTGGATGCCGCCGAGAGCATCCTG
 TACCGTAAGTTCACCACCGAGAGCGACGTGTGGAGCTTCGGCGTGGTGTCTGGGAGATCTCACCTACG
 GCAAGCAGCCCTGGTACCAGCTCTCAACACGGAGGCAATCGACTGCATCAGCAGGGACGTGAGTTGGA
 GCGGCCACGTGCCTGCCACCAGAGGTCTACGCCATCATGCGGGGCTGCTGGCAGCGGGAGCCCCAGCAA
 CGCCACAGCATCAAGGATGTGCACGCCCGGCTGCAAGCCCTGGCCAGGCACCTCCTGTCTACCTGGATG
 TCCTGGGC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG213047 representing NM_002529
Red=Cloning site Green=Tags(s)

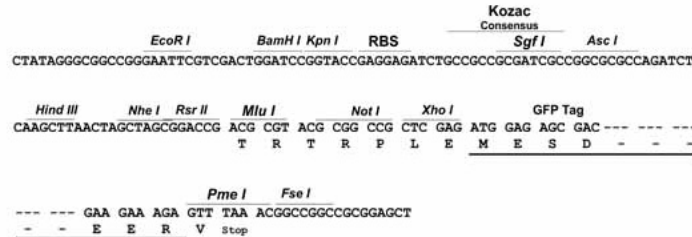
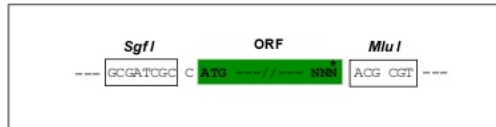
MLRGGRRGQLGWHSWAAGPGSLLAWLILASAGAAPCPDACCPHGSSGLRCTR DGALDSLHHLPGAENL TE
LYIENQQHLQHLELRDLRGLGELRNLTI VKSGLRFVAPDAFHFTPRLSRLNLSFNAESLSWKTVQGLSL
QELVLSGNPLHCSCALRWLQRWEEELGGVPEQKLQCHGQGPLAHMPNASCGVPTLKVQVPNASVDVGD
VLLRCQVEGRGLEQAGWILTELEQSATVMKSGGLPSLGLTLANVTSDLNRKNVTCWAENDVGRAEVSQV
NVSFPASVQLHTAVEMHHWCIPFSVDGQPAPSLRWLFNGSVLNETSFI FTEFLEPAANETVRHGCLRNLQ
PTHVNNNGNYTLAANPFQASASIMAAFMDNPFEPEDPIPVSFSPVDTNSTSGDPVEKKDET PFGVSV
AVGLAVFACLFLSTLLLVLNKCGRRNKFGINRPAVLAPEDGLAMSLHFMTLGGSSLSPTEGKGSGLQGHI
IENPQYFSDACVHHIKRRDIVLKWELGEGAFGKVF LAECHNLLPEQDKMLVAVKALKEASE SARQDFQRE
AELLTMLQHQHIRVFFGVCTEGRPLLMVFEYMRHGDLNRFLRSHGPDAKLLAGGEDVAPGPLGLGQLLAV
ASQVAAGMVYLAGLHFVHRDLATRNLVGQGLVVKIGDFGMSRDIYSTDYRVGGRTMLPIRWPPE SIL
YRKFTTESDVWSFGVVLWEIFTYKQPWYQLSNTEAIDCITQGRELERPRACPPEVYAIMRGCWQREPQQ
RHSIKDVHARLQALAQAPPVYLDVLG

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



ACCN: NM_002529

ORF Size: 2388 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).

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](#)

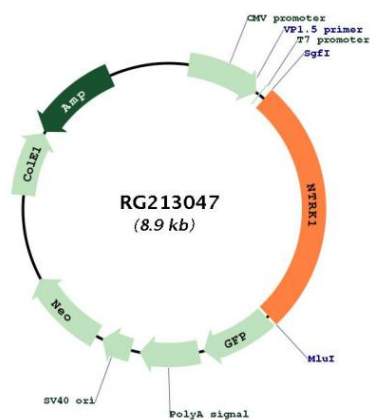
Cytogenetics: 1q23.1

Protein Families: Druggable Genome, Protein Kinase, Transmembrane

Protein Pathways: Apoptosis, Endocytosis, MAPK signaling pathway, Neurotrophin signaling pathway, Pathways in cancer, Thyroid cancer

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]

Product images:



Circular map for RG213047