

## Product datasheet for **RG220855**

### TrkA (NTRK1) (NM\_001007792) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TrkA (NTRK1) (NM_001007792) 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)



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ORF Nucleotide  
Sequence:

>RG220855 representing NM\_001007792  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGCATCGCC**

ATGAAGGAGGCCGCCCTCATCTGCCTGGCACCCCTCTGTACCCCGATCTTGACGGTGAAGTCTGGGACA  
CCATGCAGTTGCGGGCTGCTAGATCTCGGTGCACAACTTGTGGCAGCAAGCTACATCGAGAACCAGCA  
GCATCTGCAGCATCTGGAGCTCCGTGATCTGAGGGCCTGGGGGAGCTGAGAACTCACCATCGTGAAG  
AGTGGTCTCCGTTTCGTGGCGCCAGATGCCTTCCATTTCACTCCTCGGCTCAGTCGCTGAATCTCTCT  
TCAACGCTCTGGAGTCTCTCTCGAAAAGTGTGACGGCCTCTCTTACAGGAACTGGTCTGTCCGG  
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CCTGAACAGAAGCTGCAGTGTATGGGCAAGGGCCCTGGCCACATGCCAATGCCAGCTGTGGTGTGC  
CCACGCTGAAGGTCCAGGTGCCAATGCCTCGGTGGATGTGGGGACGACGTGCTGCGGTGCCAGGT  
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TGTGCAGCTGCACACGGCGGTGGAGATGCACCACTGGTGCATCCCTTCTCTGTGGATGGGCAGCCGGCA  
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CAACTACACGCTGCTGGTGCACCCCTTCCGGCAGGCCCTCCGCTCCATCATGGCTGCCTTCAATGGAC  
AACCTTTTCGAGTTCAACCCCGAGGACCCATCCCTGACATAACAGCACATCTGGAGACCCGGTGGAGA  
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TAGCTGCTCCTTGTGCTCAACAAATGTGGACGGAGAAACAAGTTTGGGATCAACCGCCCGCTGTGTG  
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CCGAGAGTGCTCGGCAGGACTTCCAGCGTGAGGCTGAGCTGCTCACCATGCTGCAGCACCAGCACATCGT  
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GGTGAATTTGGCATGAGCAGGGATATCTACAGCACCGACTATTACCGTGTGGGAGGCCGACCATGCTGC  
CCATTCGCTGGATGCCGCCGAGAGCATCTGTACCGTAAGTTCACCACCGAGAGCGACGTGTGGAGCTT  
CGGCGTGGTGTCTGGGAGATCTTACCTACGGCAAGCAGCCCTGGTACCAGCTCTCAACACGGAGGCA  
ATCGACTGCATCACGCAGGGACGTGAGTTGGAGCGGCCACGTGCCTGCCACCAGAGGTCTACGCCATCA  
TGCGGGGCTGCTGGCAGCGGGAGCCCCAGCAACGCCACAGCATCAAGGATGTGCACGCCCGGCTGCAAGC  
CCTGGCCAGGCACCTCTGTCTACCTGGATGTCTGGGC

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG220855 representing NM\_001007792  
 Red=Cloning site Green=Tags(s)

```
MKEAALICLAPSVPPILTVKSWDTMQLRAARSRCTNLLAASYIENQHLQHLELRDLRGLGELRNLTIK
SGLRFVAPDAFHFTPLRLSRLNLSFNALESLSWKTVOGLSLQELVLSGNPLHCSCALRWLQRWEEELGGV
PEQKLQCHGQGPLAHMPNASCQVPTLKVQVFNASVDVGGDVLRLCQVEGRGLEQAGWILTELEQSATVMK
SGGLPSLGLTLANVTSDLNRKNVTCWAENDVGRAEVSQVNVVFPASVQLHTAVEMHHWCIPFVSDGQPA
PSLRWLFNGSVLNETSFIFFTEFLEPAANETVRHGCLRLNQPTHVNNNGNYLLAANPFGQASASIMAAFMD
NPFEPNEDPIPDNTSTSGDPVEKKDETPFGVSVAVGLAVFACFLSTLLLVLNKCGRRNKFGINRPAVL
APEDGLAMSLHFMTLGGSSLSPTGKSGSLQGHIENPQYFSDACVHHIKRRDIVLKWELGEGAFGKVF
AECHNLLPEQDKMLVAVKALKEASESARQDFQREAEELLTMLQHQHIVRFFGVCTEGRPLLMVFEYMRHGD
LNRFLRSHGPDAKLLAGGEDVAPGLGLGQLLAVASQVAAGMVYLAGLHFVHRDLATRNCLVQGLVVKI
GDFGMSRDIYSTDYRVGGRTMLPIRWMPPELIRYKFTTESDVWSFGVVLWEIFTYGKQPWYQLSNT
EADICITQGRELERPRACPPEVYAIMRGCWQREPQQRHSIKDVHARLQALAQAPPVYLDVLG
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001007792

**ORF Size:** 2280 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\\_001007792.1](#), [NP\\_001007793.1](#)

**RefSeq Size:** 2581 bp

**RefSeq ORF:** 2283 bp

**Locus ID:** 4914

**UniProt ID:** [P04629](#)

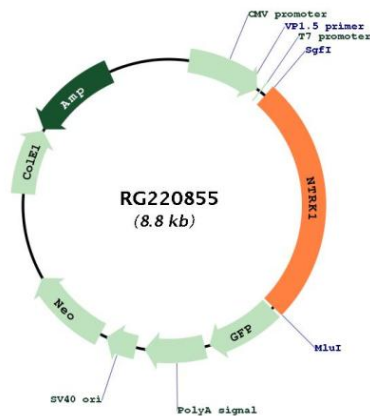
**Cytogenetics:** 1q23.1

**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 RG220855