

## Product datasheet for **RC600035**

### TrkB (NTRK2) (NM\_001018064) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TrkB (NTRK2) (NM_001018064) Human Tagged ORF Clone
Tag:	DDK-His
Symbol:	TrkB
Synonyms:	DEE58; EIEE58; GP145-TrkB; OBHD; trk-B; TRKB
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5-DDK-His (PS100068)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RC600035 representing leader sequence plus the extracellular domain region of NM\_001018064

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

GTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCTGGTACCGAGGAGATCCGCCGCCG  
CGATCGCC

ATGTCGTCTGGATAAGGTGGCATGGACCCGCATGGCGGGCTCTGGGGCTTCTGCTGGCTGGTTGTGG  
GCTTCTGGAGGGCCGCTTTCGCCTGTCCACGTCTGCAATGCAGTGCCTCTCGGATCTGGTGCAGCGA  
CCCTTCTCTGGCATCGTGGCATTTCGAGATTGGAGCCTAACAGTGTAGATCCTGAGAACATCACCGAA  
ATTTTCATCGCAAACAGAAAAGTTAGAAATCATCAACGAAGATGATGTTGAAGCTTATGTGGGACTGA  
GAAATCTGACAATTGTGGATTCTGGATTAATAATTTGTGGCTCATAAAGCATTCTGAAAAACAGCAACCT  
GCAGCACATCAATTTACCCGAAACAACTGACGAGTTTGTCTAGGAAACATTTCCGTACCTTGACTTG  
TCTGAAGTATCCTGGTGGCAATCCATTTACATGCTCCTGTGACATTATGTGGATCAAGACTCTCCAAG  
AGGCTAAATCCAGTCCAGACACTCAGGATTTGACTGCCTGAATGAAAGCAGCAAGAATATCCCTGGC  
AAACCTGCAGATACCAATTGTGGTTTGGCATCTGCAAACTGGCCGCACCTAACCTCACTGTGGAGGAA  
GGAAAGTCTATCACATTATCCTGTAGTGTGGCAGGTGATCCGGTTCCTAATATGTATTGGGATGTTGGTA  
ACCTGGTTTCAAACATATGAATGAAACAAGCCACACACAGGGCTCCTTAAGGATAACTAACATTTTCATC  
CGATGACAGTGGGAAGCAGATCTCTTGTGTGGCGGAAAATCTTGTAGGAGAAGATCAAGATTCTGTCAAC  
CTCACTGTGCATTTTGCACCAACTATCACATTTCTCGAATCTCCAACCTCAGACCACCACTGGTGCATTC  
CATTCACTGTGAAAGGCAACCCAAACAGCGCTTCAGTGGTCTATAACGGGGCAATATGAATGAGTC  
CAAATACATCTGTACTAAAATACATGTTACCAATCACACGGAGTACCACGGCTGCCTCCAGCTGGATAAT  
CCCCTCACATGAACAATGGGGACTACACTCTAATAGCCAAGAATGAGTATGGGAAGGATGAGAAACAGA  
TTTCTGCTCACTTCATGGGCTGGCTGGAATTGACGATGGTGCAAACCCAAATTATCCTGATGTAATTTA  
TGAAGATTATGGAAGTGCAGCAATGACATCGGGGACACCACGAACAGAAGTAAATGAAATCCCTCCACA  
GACGCTCACTGATAAAACCGGTTCGGGAACAT

ACGCGTTCAGGCGACTACAAGGATGACGACGATAAGGGATCTCATCATCACCATCACCATTAATGAGATC  
TGGTACCGATATCAAGCTTGTGACTCTAGA

**Protein Sequence:**

>RC600035 representing signal peptide plus the extracellular domain region of NM\_001018064

Red=Cloning sites Green= DDK and 6XHis Tags

MSSWIRWHGPAMARLWGFVWRAAFACPTSCKCSASRIWCSDPSPGIVAFPRLEPNVDPENITE  
IFIANQKRLIINEDDVEAYVGLRNLTIIVDSGLKFVAHKAFKNSNLQHINFRNKLTSLSRKHFRLDL  
SELILVGNPFTCSDIMWIKTLQEAKSSPDTQDLYCLNESSKNIPLANLQIPNCGLPSANLAAPNLVVEE  
GKSITLSCSVAGDPVPPNMYWDVGNLVSKHMNETSHTQGLRITNIISSDDSGKQISCVANLVGEDQDSVN  
LTVHFAPTITFLESPTSDDHWCIPFTVKGNPKPALQWFYNGAILNESKYICTKIHVNTNHEYHGCLQLDN  
PTHMNGDYTLIAKNEYGKDEKQISAHFMGWPGIDDGANPNYPDVIYEDYGTAAANDIGDITNRSNEIPST  
DVTDKTGREH

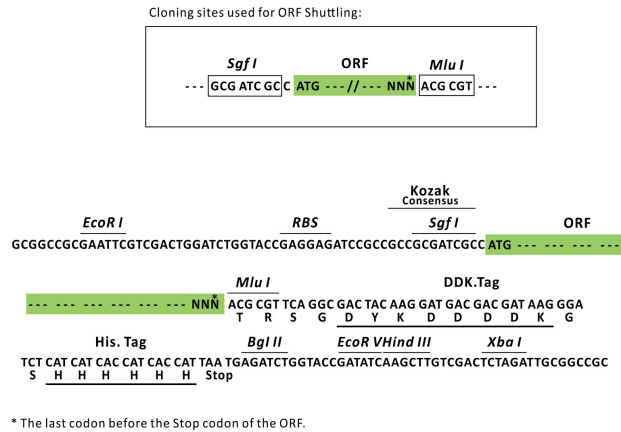
TRSGTRSGDYKDDDDKGSHHHHHH

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk8117\\_e12.zip](https://cdn.origene.com/chromatograms/mk8117_e12.zip)

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**


**ACCN:** NM\_001018064

**ORF Size:** 2469 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\\_001018064.1](#), [NP\\_001018074.1](#)

**RefSeq Size:** 8647 bp

**RefSeq ORF:** 2469 bp

**Locus ID:** 4915

**UniProt ID:** [Q16620](#)

**Cytogenetics:** 9q21.33

<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transmembrane
<b>Protein Pathways:</b>	MAPK signaling pathway, Neurotrophin signaling pathway
<b>MW:</b>	47.9 kDa
<b>Gene Summary:</b>	This gene encodes a member of the neurotrophic tyrosine receptor kinase (NTRK) family. This kinase is a membrane-bound receptor that, upon neurotrophin binding, phosphorylates itself and members of the MAPK pathway. Signalling through this kinase leads to cell differentiation. Mutations in this gene have been associated with obesity and mood disorders. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2014]