

## Product datasheet for **RC221794**

### TrkB (NTRK2) (NM\_006180) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	TrkB (NTRK2) (NM_006180) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TrkB
Synonyms:	DEE58; EIEE58; GP145-TrkB; OBHD; trk-B; TRKB
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC221794 representing NM\_006180  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCGTCCTGGATAAGGTGGCATGGACCCGCCATGGCGGGCTCTGGGCTTCTGCTGGCTGGTTGTGG  
 GCTTCTGGAGGGCGCTTTCGCCTGTCCCACGTCTGCAAATGCAGTGCCTCTCGGATCTGGTGCAGCGA  
 CCCTTCTCCTGGCATCGTGGCATTTCAGAGATTGGAGCCTAACAGTGTAGATCCTGAGAACATCACCGAA  
 ATTTTCATCGCAAACAGAAAAGGTTAGAAATCATCAACGAAGATGATGTTGAAGCTTATGTGGACTGA  
 GAAATCTGACAATTGTGGATTCTGGATTAATAATTTGTGGCTCATAAAGCATTCTGAAAAACAGCAACCT  
 GCAGCACATCAATTTACCCGAAACAACTGACGAGTTTGTCTAGGAAACATTTCCGTCACCTTGACTTG  
 TCTGAAGTATCCTGGTGGCAATCCATTTACATGCTCCTGTGACATTATGTGGATCAAGACTCTCCAAG  
 AGGCTAAATCCAGTCCAGACACTCAGGATTTGACTGCCTGAATGAAAGCAGCAAGAATATCCCCTGGC  
 AAACCTGCAGATACCCAATTGTGGTTTGCATCTGCAAATCTGGCCGCACCTAACCTCAGTGGAGGAA  
 GGAAAGTCTATCACATTATCCTGTAGTGTGGCAGGTGATCCGGTTCCTAATATGATTGGGATGTTGGTA  
 ACCTGGTTTTCAAACATATGAATGAAACAAGCCACACACAGGGCTCCTTAAGGATAACTAACATTTTCATC  
 CGATGACAGTGGGAAGCAGATCTCTGTGTGGCGAAAATCTTGTAGGAGAAGATCAAGATTCTGTCAAC  
 CTCAGTGTGATTTTGCACCAACTATCACATTTCTCGAATCTCCAACCTCAGACCACCACTGGTGCATTC  
 CATTCACTGTGAAAGGCAACCCAAACAGCGCTTCAGTGGTCTATAACGGGGCAATATTGAATGAGTC  
 CAAATACATCTGACTAAAATACATGTTACCAATCACACGGAGTACCACGGCTGCCTCCAGCTGGATAAT  
 CCCACTCACATGAACAATGGGGACTACACTCTAATAGCCAAGAATGAGTATGGGAAGGATGAGAAACAGA  
 TTTCTGCTCACTTCATGGGCTGGCCTGGAATTGACGATGGTGAACCCAAATTAATCCTGATGTAATTTA  
 TGAAGATTATGGAAGTGCAGCGAATGACATCGGGGACACCACGAACAGAAGTAATGAAATCCCTTCACA  
 GACGTCAGTATAAAACCGGTCGGGAACATCTCTCGGTCTATGCTGTGGTGGTATTGCGTCTGTGGTGG  
 GATTTTGCCTTTTGGTAATGCTGTTTCTGCTTAAGTTGGCAAGACTCCAAGTTTGGCATGAAAGATTT  
 CTCATGGTTTGGATTTGGGAAAGTAAAATCAAGACAAGGTGTTGGCCAGCCTCCGTTATCAGCAATGAT  
 GATGACTCTGCCAGCCACTCCATCACATCTCCAATGGGAGTAACACTCCATCTTCTCGGAAGGTGGCC  
 CAGATGCTGTATTATTGGAATGACCAAGATCCCTGTGATTGAAAATCCCAGTACTTTGGCATCACCAA  
 CAGTCAGCTCAAGCCAGACACATTTGTTGAGCACATCAAGCGACATAACATTGTTCTGAAAAGGGAGCTA  
 GCGGAAGGAGCCTTTGGAAAAGTGTTCCTAGCTGAATGCTATAACCTCTGCTCCTGAGCAGGACAAGATCT  
 TGGTGGCAGTGAAGACCCTGAAGGATGCCAGTGAATGCACGCAAGGACTTCCACCGTGAGGCCGAGCT  
 CCTGACCAACCTCCAGCATGAGCACATCGTCAAGTTCTATGGCGTCTGCGTGGAGGGCGACCCCTCATC  
 ATGGTCTTTGAGTACATGAAGCATGGGGACCTCAACAAGTTTCTCAGGGCACACGGCCCTGATGCCGTGC  
 TGATGGCTGAGGGCAACCCGCCACGGAAGTGCAGCAGTGCAGATGCTGCATATAGCCAGCAGATCGC  
 CGCGGGCATGGTCTACCTGGCGTCCCAGCACTTCGTGCACCGGATTTGGCCACCAGGAAGTGCCTGGTC  
 GGGGAGAACTTGCTGGTAAAAATCGGGGACTTTGGGATGTCCCGGGACGTGTACAGCACTGACTACTACA  
 GGGTGGTGGCCACACAATGCTGCCATTCGCTGGATGCCTCCAGAGAGCATCATGTACAGGAAATTCAC  
 GACGAAAAGCAGCTCTGGAGCCTGGGGTCTGTTGTGGGAGATTTTACCTATGGCAAACAGCCCTGG  
 TACCAGCTGTCAAACAATGAGGTGATAGAGTGTACTCAGGGCCGAGTCTGCAGCAGCCCGCACGT  
 GCCCCAGGAGGTGATGAGCTGATGCTGGGTGCTGGCAGCAGAGCCCAATGAGGAAGAATCAAA  
 GGGCATCCATACCCTCCTTCAGAACTTGGCCAAGGCATCTCCGGTCTACCTGGACATTCTAGGC

**ACGGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC221794 representing NM\_006180  
Red=Cloning site Green=Tags(s)

MSSWIRWHGPAMARLWGFCWL VVGFWRAAFACPTSCCKCSASRIWCSDPSPGIVAFPRLEPNSVDPENITE  
IFIANQKRLIINEDDVEAYVGLRNLTI VDSGLKFVAHKAFKNSNLQHINFRNKLTSLSRKHFRHLDL  
SELILVGNPFTCSCDIMWIKTLQEA KSSPDTQDLYCLNESSKNIPLANLQIPNCGLPSANLAAPNLVVEE  
GKSITLSCSVAGDPVPMYWDVGNL VSKHMNETSHTQGSLRITNISDDSGKQISCAENLVGEDQDSVN  
LTVHFAPTITFLESPTS DHHWCIPFTVKGNPKPALQWFYNGAILNESKYICTKIHV TNHTEYHGCLQLDN  
PTHMNGDYTLIAKNEYGKDEKQISA HFMGWP GIDDGANPNYPDVIYEDYGTAAANDIGD TTNRSNEIPST  
DVTDKTGREHLSVYAVVVIASV VGFCLLVMLFLLKLARHSKFGMKDFSWFGFGKVKSRQGVGPASVISND  
DDSASPLHHISNGSNTPSSEGGPDAVIIGMTKIPVIENPQYFGITNSQLKPDTFVQH IKRHNIVLKREL  
GEGAFGKVFLAECYNLCPEQDKILVAVKTLK DASNARKDFHREAELLTNLQHEHIVKFYGVCEVGDPLI  
MVF EYMKHGDLNKFLRAHGPD AVLMAEGNPTEL TQSQMLHIAQQIAAGMVYLASQHFVHRDLATRNCLV  
GENLLVKIGDFGMSRDVYSTDYR VGGHTMLPIRWMPPESIMYRKFTTESDVWSLGVVLEIFTY GKQPW  
YQLSNNEVIECITQGRVLQRPR TPCQEVYELMLGCWQREPHMRKNIKGIHTLLQNLAKASPVYLDILG

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mg2786\\_e03.zip](https://cdn.origene.com/chromatograms/mg2786_e03.zip)

Restriction Sites: Sgfl-Mlul

Cloning Scheme:



ACCN: NM\_006180

ORF Size: 2514 bp

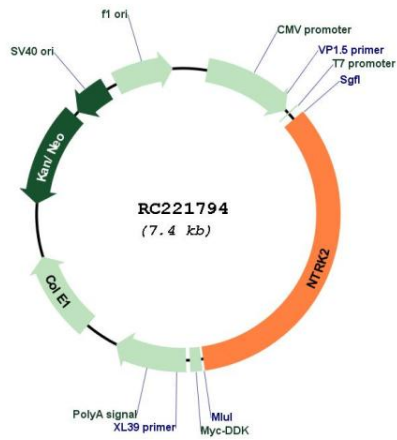
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

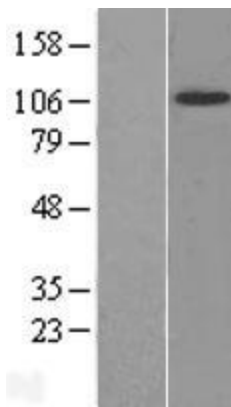
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

<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>	<a href="#">NM_006180.6</a>
<b>RefSeq Size:</b>	5608 bp
<b>RefSeq ORF:</b>	2517 bp
<b>Locus ID:</b>	4915
<b>UniProt ID:</b>	<a href="#">Q16620</a>
<b>Cytogenetics:</b>	9q21.33
<b>Domains:</b>	LRRNT, LRRCT, pkinase, TyrKc, LRR, S_TKc, ig, IGc2, IG
<b>Protein Families:</b>	Druggable Genome, Protein Kinase, Transmembrane
<b>Protein Pathways:</b>	MAPK signaling pathway, Neurotrophin signaling pathway
<b>MW:</b>	93.83 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]

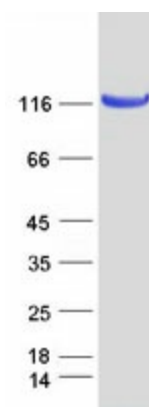
Product images:



Circular map for RC221794



Western blot validation of overexpression lysate (Cat# [LY416818]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221794 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NTRK2 protein (Cat# [TP321794]). The protein was produced from HEK293T cells transfected with NTRK2 cDNA clone (Cat# RC221794) using MegaTran 2.0 (Cat# [TT210002]).