OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC205129

TrkB (NTRK2) (NM_001007097) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TrkB (NTRK2) (NM_001007097) 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:

>RC205129 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCGTCCTGGATAAGGTGGCATGGACCCGCCATGGCGCGGCTCTGGGGCTTCTGCTGGCTGGTTGTGG
GCTTCTGGAGGGCCGCTTTCGCCTGTCCCACGTCCTGCAAATGCAGTGCCTCTCGGATCTGGTGCAGCGA
CCCTTCTCCTGGCATCGTGGCATTTCCGAGATTGGAGCCTAACAGTGTAGATCCTGAGAACATCACCGAA
ATTTTCATCGCAAACCAGAAAAGGTTAGAAATCATCAACGAAGATGATGTTGAAGCTTATGTGGGACTGA
GAAATCTGACAATTGTGGATTCTGGATTAAAATTTGTGGCTCATAAAGCATTTCTGAAAAACAGCAACCT
GCAGCACATCAATTTTACCCGAAACAAACTGACGAGTTTGTCTAGGAAACATTTCCGTCACCTTGACTTG
TCTGAACTGATCCTGGTGGGCAATCCATTTACATGCTCCTGTGACATTATGTGGATCAAGACTCTCCAAG
AGGCTAAATCCAGTCCAGACACTCAGGATTTGTACTGCCTGAATGAAAGCAGCAAGAATATTCCCCTGGC
AAACCTGCAGATACCCAATTGTGGTTTGCCATCTGCAAATCTGGCCGCACCTAACCTCACTGTGGAGGAA
GGAAAGTCTATCACATTATCCTGTAGTGTGGCAGGTGATCCGGTTCCTAATATGTATTGGGATGTTGGTA
ACCTGGTTTCCAAACATATGAATGAAACAAGCCACACACAGGGCTCCTTAAGGATAACTAACATTTCATC
CGATGACAGTGGGAAGCAGATCTCTTGTGTGGCGGAAAATCTTGTAGGAGAAGATCAAGATTCTGTCAAC
CTCACTGTGCATTTTGCACCAACTATCACATTTCTCGAATCTCCAACCTCAGACCACCACTGGTGCATTC
CATTCACTGTGAAAGGCAACCCCAAACCAGCGCTTCAGTGGTTCTATAACGGGGCAATATTGAATGAGTC
CAAATACATCTGTACTAAAATACATGTTACCAATCACACGGAGTACCACGGCTGCCTCCAGCTGGATAAT
CCCACTCACATGAACAATGGGGACTACACTCTAATAGCCAAGAATGAGTATGGGAAGGATGAGAAACAGA
TTTCTGCTCACTTCATGGGCTGGCCTGGAATTGACGATGGTGCAAACCCAAATTATCCTGATGTAATTTA
TGAAGATTATGGAACTGCAGCGAATGACATCGGGGACACCACGAACAGAAGTAATGAAATCCCTTCCACA
GACGTCACTGATAAAACCGGTCGGGAACATCTCTCGGTCTATGCTGTGGTGGTGATTGCGTCTGTGGTGG
GATTTTGCCTTTTGGTAATGCTGTTTCTGCTTAAGTTGGCAAGACACTCCAAGTTTGGCATGAAAGGTTT
TGTTTTGTTTCATAAGATCCCACTGGATGGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205129 protein sequence
Red=Cloning site Green=Tags(s)

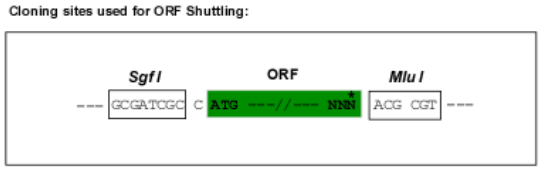
MSSWIRWHGPAMARLWGFCWLVVGFWRAAFACPTSCKCSASRIWCSDPSPGIVAFPRLEPNSVDPENITE
IFIANQKRLEIINEDDVEAYVGLRNLTIVDSGLKFVAHKAFLKNSNLQHINFTRNKLTSLSRKHFRHLDL
SELILVGNPFTCSCDIMWIKTLQEAKSSPDTQDLYCLNESSKNIPLANLQIPNCGLPSANLAAPNLTVEE
GKSITLSCSVAGDPVPNMYWDVGNLVSKHMNETSHTQGSLRITNISSDDSGKQISCVAENLVGEDQDSVN
LTVHFAPTITFLESPTSDHHWCIPFTVKGNPKPALQWFYNGAILNESKYICTKIHVTNHTEYHGCLQLDN
PTHMNNGDYTLIAKNEYGKDEKQISAHFMGWPGIDDGANPNYPDVIYEDYGTAANDIGDTTNRSNEIPST
DVTDKTGREHLSVYAVVVIASVVGFCLLVMLFLLKLARHSKFGMKGFVLFHKIPLDG

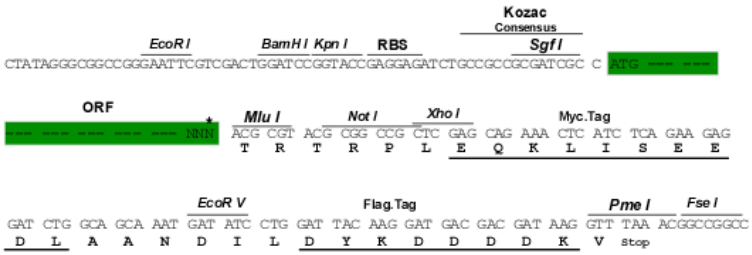
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6015_f02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:





* The last codon before the Stop codon of the ORF

ACCN: NM_001007097

ORF Size: 1431 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_001007097.3

RefSeq Size: 7157 bp

RefSeq ORF: 1434 bp

Locus ID: 4915

UniProt ID: Q16620

Cytogenetics: 9q21.33

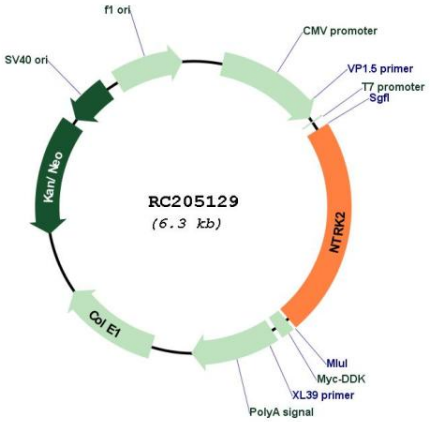
Protein Families: Druggable Genome, Protein Kinase, Transmembrane

Protein Pathways: MAPK signaling pathway, Neurotrophin signaling pathway

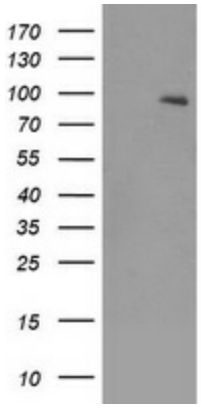
MW: 53.1 kDa

Gene Summary: 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]

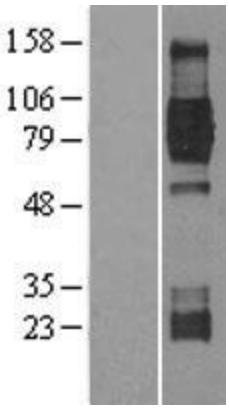
Product images:



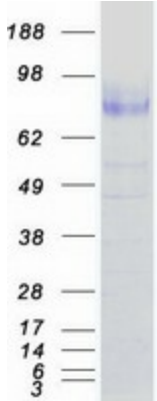
Circular map for RC205129



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NTRK2 (Cat# RC205129, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-NTRK2(Cat# [TA500386]). Positive lysates [LY400391] (100ug) and [LC400391] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400391]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205129 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified NTRK2 protein (Cat# [TP305129]). The protein was produced from HEK293T cells transfected with NTRK2 cDNA clone (Cat# RC205129) using MegaTran 2.0 (Cat# [TT210002]).