

Product datasheet for **RC204282**

TRAK1 (NM_014965) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TRAK1 (NM_014965) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TRAK1
Synonyms:	EIEE68; MILT1; OIP106
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC204282 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCCTCGCAGACAAGGGCGGGGAAGAAGAATGTTTTGAATACGACTGCCAGGATGAAGAGAGGAAGC
 CAACCCACAGGCAGCATGACACCCAGGACCTCTTGGAAGAGGTTTTATGTGCTGAAAGAGTTGGCCAGAT
 GACTAAGACATATAATGACATAGATGCTGTCACTCGGCTTCTTGAGGAGAAAGAGCGGGATTTAGAATTG
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 TAGCTACCTCCACTCCAGTTCAGCACCCAGAGACCTCAGGTGAGAGGTCCAAGCAGTGTGACTGTCTC
 AGGCAGCAGAAGTTACCCGAGCCGGCTCAGGTTCCCCAGAGGAGATGCAGGAGCCGCCAGCGGCCACG
 GAG
 ACTTGGCACCTTTCCCGGAGGCAGAGTTTTGGGCCATTCTCACCTCTGTTCCAGGCACCATCCGTAGTGG
 TTCTCTGTCTGTAGCTTCCGCTCGTCTGTGTGGG

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC204282 protein sequence
Red=Cloning site Green=Tags(s)

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MSLRDKGGEEECFEYDCQDEERKPTHRQHTDQDLLEEVLC AERVGQMTKYNDIDAVTRLLLEEKERDLEL
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ESSSSVQNYFHLDSLQKKLKDL EEENVLRSEASQLKTE TITYEEKEQQLVND CVKELRDANVQIASISE
ELAKKTEDAARQ QEEITHLLSQIVDLQKKAKACAVENEELVQHLGAAKDAQRQLT AELRELEDKYAECME
MLHEAQEELKNLRNKTPN TTSRRYHSLGLFPMDSLAAEIEGTMRKELQLEEAESPDITHQKRVFETVRN
INQVVKQRSLTPSPMNIPGSNQSSAMNSLLSSCVSTPRSSFYGS DIGNVVLDNK TNSIILETEAADLGND
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LDEVYCLNDFEEDDTGDHISL PRLATSTPVQHPETSGERSQARVTVSGRSYPSRPQASPEEMQEPPAAT
EEEEEEEEEEEGSGEGTTISP VNLAPFPEAEFWAILTSVPGTIRSGSLSVASARLCG
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TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6430_f07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_014965

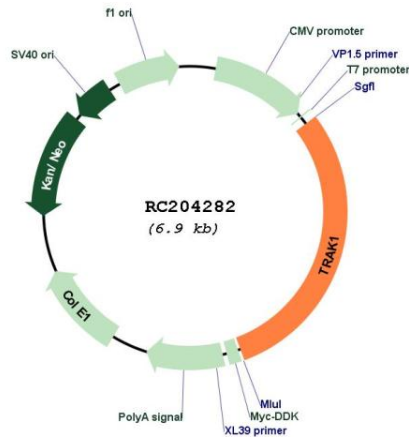
ORF Size: 2064 bp

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](#)

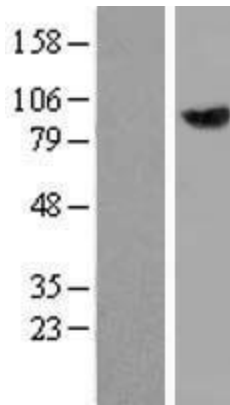
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none">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_014965.5
RefSeq Size:	4623 bp
RefSeq ORF:	2061 bp
Locus ID:	22906
UniProt ID:	Q9UPV9
Cytogenetics:	3p22.1
Domains:	HAP1_N
Protein Families:	Transcription Factors
MW:	77.5 kDa
Gene Summary:	Involved in the regulation of endosome-to-lysosome trafficking, including endocytic trafficking of EGF-EGFR complexes and GABA-A receptors (PubMed:18675823). Involved in mitochondrial motility. When O-glycosylated, abolishes mitochondrial motility. Crucial for recruiting OGT to the mitochondrial surface of neuronal processes (PubMed:24995978). TRAK1 and RHOT form an essential protein complex that links KIF5 to mitochondria for light chain-independent, anterograde transport of mitochondria (By similarity).[UniProtKB/Swiss-Prot Function]

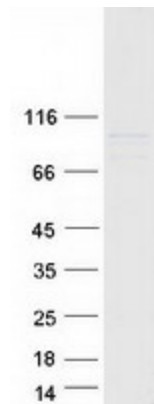
Product images:



Circular map for RC204282



Western blot validation of overexpression lysate (Cat# [LY414894]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204282 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TRAK1 protein (Cat# [TP304282]). The protein was produced from HEK293T cells transfected with TRAK1 cDNA clone (Cat# RC204282) using MegaTran 2.0 (Cat# [TT210002]).