

Product datasheet for **RC234686**

TRAK1 (NM_001265609) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TRAK1 (NM_001265609) 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:

>RC234686 representing NM_001265609
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGCAGAAATTTATCGAAGCGGATTATTATGAACTAGACTGGTATTATGAAGAATGCTCGGATGTTTTAT
GTGCTGAAAGAGTTGGCCAGATGACTAAGACATATAATGACATAGATGCTGTCACCTCGGCTTCTTGAGGA
GAAAGAGCGGATTTAGAAATGGCCGCTCGCATCGGCCAGTCGTTGTTGAAGAAGAACAAGACCCTAACC
GAGAGGAACGAGCTGCTGGAGGAGCAGGTGGAACACATCAGGGAGGAGGTGTCTCAGCTCCGGCATGAGC
TGTCCATGAAGGATGAGCTGCTTCACTTACACCAGCGCTCGGAGGAGAGTGAGCCCGAGTCCGTTTG
CTCAACCCCGTTGAAGAGGAATGAGTCGTCCTCCTCAGTCCAGAATTACTTTTCAATTTGGATTCTCTTCAA
AAGAAGCTGAAAGACCTTGAAGAGGAGAATGTTGTAATTCGATCCGAGGCCAGCCAGCTGAAGACAGAGA
CCATCACCTATGAGGAGAAGGAGCAGCAGCTGGTCAATGACTGCGTGAAGGAGCTGAGGGATGCCAATGT
CCAGATTGCTAGTATCTCAGAGGAAGTGGCCAAGAAGACGGAAGATGCTGCCCGCAGCAAGAGGAGATC
ACACACCTGCTATCGCAAATAGTTGATTTGCAGAAAAAGGCAAAAGCTTGCGCAGTGAAAAATGAAGAAC
TTGTCCAGCATCTGGGGGCTGCTAAGGATGCCAGCGGAGCTCACAGCCGAGCTGCGTGAGCTGGAGGA
CAAGTACGCAGAGTGCATGGAGATGCTGCATGAGGCGCAGGAGGAGCTGAAGAACCTCCGGAACAAAACC
ATGCCCAATACCACGCTCTCGGCGTACCACTCACTGGGCTGTTCCCATGGATTCTTGGCAGCAGAGA
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TGTCTTTGAGACAGTAAGAAACATCAACCAGGTTGTCAAGCAGAGATCTCTGACCCCTTCTCCATGAAC
ATCCCCGGCTCCAACAGTCTCGGCCATGAACTCCCTCCTGTCCAGCTGCGTCAGCACCCCGGTTCCA
GGCAGCCGACCTGGGAAACGATGAGCGGAGTAAGAAGCCGGGGACGCGGGCACCCAGGCTCCACGAC
CTGGAGACGCGCTGAGGCGGCTGTCCCTGCGCCGGGAGAACTACCTCTCGGAGAGGAGGTTCTTTGAGG
AGGAGCAAGAGAGGAAGCTCCAGGAGCTGGCGGAGAAGGGCGAGCTGCGCAGCGGCTCCCTCACACCCAC
TGAGAGCATCATGTCCCTGGGCACGCACTCCCGCTTCTCCGAGTTCACCGGCTTCTTGGCATGTCTTTC
AGCAGCCGCTCTACCTGCCTGAGAAGCTCCAGATCGTGAAGCCGCTGGAAGGTTCCGCCCACTTACC
ACTGGCAGCAGTTGGCCCAACCTCACCTTGGGGGCATCCTGGACCCCGGCCCGGTGTGGTCACCAAGGG
CTTCCGGACGCTGGATGTTGACCTGGACGAAGTGTACTGCCTAACGACTTTGAAGAAGATGACACAGGT
GACCACATTTCTCTCCACGCCTAGCTACCTCCACTCCAGTTCAGCACCCAGAGACCTCAGGTGAGAGGT
CCCAAGCAGTGTGACTGTCTCAGGCAGCAGAAGTTACCCGAGCCGGCCTCAGGCTTCCCCAGAGGAGAT
GCAGGAGCCGCCAGCGGCCACGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG
ACGATAAGTCTGTAAACTTGGCACCTTCCCGGAGGCAGAGTTTTGGGCCATTCTCACCTCTGTTCCAG
GCACCATCCGTAGTGTTCTCTGTCTGTAGCTTCCGCTCGTCTGTGTGGG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC234686 representing NM_001265609
Red=Cloning site Green=Tags(s)

MQKFIEADYYELDWYEECSVDLCAERVGQMTKTYNDIDAVTRLLEEKERDLELAARIGQSLKKNKTLT
 ERNELLEEQVEHIREEVSQRLRHELSMKDELLQFYTSAAEESEPEVCSTPLKRNESSSVQNYFHLDLQ
 KKLKDLLEENVLRSEASQLKTEITITYEKEQQLVNDCKELRDANVQIASISELAKKTEDAARQQEEI
 THLLSQIVDLQKKAKACAVENEELVQHLGAAKDAQRQLTAELELEDKYAECMEMLHEAQEELKNLRNKT
 MPNTTSRRYHSLGLFPMDSLAAEIEGTRMRELQLEEAESPDITHQKRVFETVRNINQVVKQRSLTPSPMN
 IPGSNQSSAMNSLLSSCVSTPRSSFYGSDIGNVVLDNKNTNSIILETEAADLGNDERSKPGTPTGPGSHD
 LETALRRLSLRRENYLSERRFFEEEQERKLQELAEKGLRSGSLTPTESIMSLGTHSRFSEFTGFSGMSF
 SRSYLPKQLQIVKPLEGSATLHHWQQLAQPPLGGILDPRPGVVTGKFRITLDVLDDEVYCLNDFEEDDTG
 DHSILPRLATSTPVQHPETSGERSQARVTVSGRSYPSRPQASPEEMQEPPEAEEEEEEEEEGSGEGT
 TISPVNLPAPFAEFWAILTSVPGTIRSGLSVASARLCG

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:



ACCN: NM_001265609

ORF Size: 2010 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_001265609.1](#), [NP_001252538.1](#)

RefSeq Size: 4683 bp

RefSeq ORF: 2013 bp

Locus ID: 22906

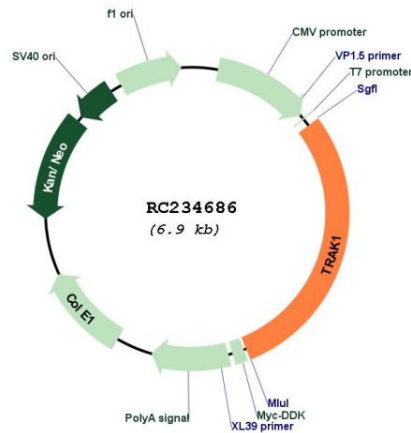
Cytogenetics: 3p22.1

Protein Families: Transcription Factors

MW: 75.9 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 RC234686