

Product datasheet for **RC224330**

TRAK1 (NM_001042646) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TRAK1 (NM_001042646) 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:

>RC224330 representing NM_001042646
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCATTGGTTTTTCAATTCGGGCAGCCCGTCAGGGCTCAGCCTCTGCCAGGACTCTGCCACGGCAAGC
 TCATTCGACAAAACGCCTGTGATGTGTGCAACAGCACCGATCTTCGGAAGTCGAGATCATTAGCCTGCT
 GGAGGAGCAGCTGCCCCATTATAAGTTAAGAGCCGACACCATCTACGGTTATGACCACGACGACTGGCTC
 CATAACCTCTCATTCTCCAGATGCCAACATTGACCTCACAAACCGAGCAAATTGAAGAGACGTTAAAT
 ACTTCTTTTTATGTGCTGAAAGAGTTGGCCAGATGACTAAGACATATAATGACATAGATGCTGCTACTCG
 GCTTCTTGAGGAGAAAGAGCGGGATTTAGAATTGGCCGCTCGCATCGCCAGTCGTTGTTGAAGAAGAAC
 AAGACCCTAACCGAGAGGAACGAGCTGCTGGAGGAGCAGGTGGAACACATCAGGGAGGAGGTGTCTCAGC
 TCCGGCATGAGCTGTCCATGAAGGATGAGCTGCTTCAGTTCTACACCAGCGCTCGGAGGAGAGTGAGCC
 CGAGTCCGTTTGCTCAACCCCGTTGAAGAGGAATGAGTCGTCCTCCTCAGTCCAGAATTACTTTTCAATTTG
 GATTCTCTTCAAAGAAGCTGAAAGACCTTGAAGAGGAGAATGTTGTACTTCGATCCGAGGCCAGCCAGC
 TGAAGACAGAGACCATCACCTATGAGGAGAAGGAGCAGCAGCTGGTCAATGACTGCGTGAAGGAGCTGAG
 GGATGCCAATGTCCAGATTGCTAGTATCTCAGAGGAACGGCCAAGAAGACGGAAGATGCTGCCGCCAG
 CAAGAGGAGATCACACACCTGCTATCGCAAATAGTTGATTTGCAGAAAAAGGCAAAAGCTTGCGCAGTGG
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 TGAGCTGGAGGACAAGTACGCAGAGTGCATGGAGATGCTGCATGAGGCGCAGGAGGAGCTGAAGAACCTC
 CGGAACAAAACCATGCCAATACCACGCTCGGCGCTACCACTCACTGGGCTGTTTCCCATGGATTCTCT
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 TACCAGAAGCGTGTCTTTGAGACAGTAAGAAAACATCAACCAGGTTGTCAAGCAGAGATCTCTGACCCCT
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 GGTCAACAAGGGCTTCCGGACGCTGGATGTTGACCTGGACGAAGTGTACTGCCTTAACGACTTTGAAGAA
 GATGACACAGGTGACCACATTTCTCTCCACGCCTAGCTACCTCCACTCCAGTTCAGCACCCAGAGACCT
 CAGCGCACCATCTGGGAAGTGCATGTCTCAGACCAACTCCACCTTACCTTACACACTGTGCGATCCT
 GCATCCTTCAGATGAGCTCACTCGGTCACACCAAGCCTTAACTCAGCCCCAACTCCAGCTTGTGGCAGC
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ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC224330 representing NM_001042646
 Red=Cloning site Green=Tags(s)

MALVFQFGQPVRAQPLPGLCHGKLI RTNACDVCNSTDLPEVEIISLLEEQLPHYKLRADTIYGYDHDWL
 HTPLISPDANIDL TTEQIEETLKYFLLCAERVGMKTYNDIDAVTRLLEEKERDLELAARIGSLLKKN
 KTLTERNELLEEQVEHIREEVSQLRHEL SMKDELLQFYTSAAEESEPSVCSTPLKRNSSSSVQNYFHL
 DSLQKKLKDLEEENVLRSEASQLKTETIYEEKEQQLVNDVCVELRDANVQIASISEELAKKTEDAARQ
 QEEITHLLSQIYDLQKKAKACAVENEELVQHLGAAKDAQRLTAELRELEDKYAECMEMLHEAQEELKNL
 RNKTMPTNTTSRRYHSLGLFPMDSLAAEIEGTMRKELQLEEAESPDIHQKRVFETVRNINQVVKQSLTP
 SPMNIPGSNQSSAMNLLSSCVSTPRSSFYGSDIGNVVLDNKTNSIILETEAADLGNDERSKKPGTPTGTP
 GSHDLETALRRLSLRRENYL SERRFFEEEQERKLQELA EK GELRSGSLTPTESIMSLGTHSRFSEFTGFS
 GMSFSSRSYLPEKLQIVKPLEGSATLHHWQQLAQPHLGGILDPRPGVVTKGFRTLDVDLDEVYCLNDFEE
 DDTGDHISL PRLATSTPVQHPETSAHHPGKCMSQTNSTFTFTTCRILHPSDELTRVTPSLNSAPTACGS
 TSHLKSTPVATPCTPRRLSLAESFTNTRESTTTMSTSLGLVWLLKERGISAAVYDPQSWDRAGRGSLLHS
 YTPKMAVIPSTPPNPMQTPTSSPPSFEFKCTSPPYDNFLASKPASSILREVREKNVRSSESQTDVSVSN
 LNLVDKVRRFVAKVVNSGRAHVPTL TEEQGPLL CGPPGAPALVPRGLVPEGLPLRCPTV TSAIGGLQL
 NSGIRNRNRSFPTMVGSSMQMKAPVTL TSGILMGAKLSKQTSLR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

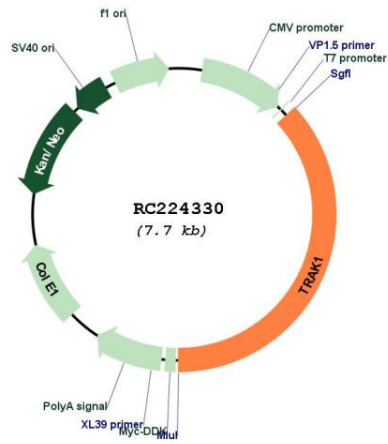


ACCN: NM_001042646

ORF Size: 2859 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_001042646.3
RefSeq Size:	5231 bp
RefSeq ORF:	2862 bp
Locus ID:	22906
UniProt ID:	Q9UPV9
Cytogenetics:	3p22.1
Protein Families:	Transcription Factors
MW:	106 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 RC224330