

Product datasheet for **RC234140**

alpha Tubulin (TUBA1A) (NM_001270399) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha Tubulin (TUBA1A) (NM_001270399) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	alpha Tubulin
Synonyms:	B-ALPHA-1; LIS3; TUBA3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC234140 representing NM_001270399
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTTCAGATTGGCAATGCCTGCTGGGAGCTCT
 ACTGCCTGGAACACGGCATCCAGCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGA
 TTCCTTCAACACCTTCTTCAGTGAGACGGGGCTGGCAAGCATGTGCCCCGGGCAGTGTTGTAGACTTG
 GAACCCACAGTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTCCACCCTGAGCAACTTATCA
 CAGGCAAGGAAGATGCTGCCAATAACTATGCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCT
 CGTGTGGACCGAATTCGCAAGCTGGCCGACCAGTGCACGGGTCTCCAGGGCTTCTTGGTTTTCCACAGC
 TTTGGTGGGGAACTGGTCTGGGTTACCTCCCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGA
 AGTCCAAGCTGGAGTTCTCTATTTACCCGGCGCCCGAGTTTCCACAGCTGTAGTTGAGCCCTACAACCT
 CATCCTCACCACCACACCACCCTGGAGCACTCTGATTGTGCCTCATGGTAGACAATGAGGCCATCTAT
 GACATCTGTCGTAGAAACCTCGATATTGAGCGTCCAACCTATACTAACCTGAATAGGTTAATAGGTCAA
 TTGTGTCCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTTGACCTGACAGAATCCAGAC
 CAACCTGGTGCCCTATCCCCGCATCCACTTCCCTCTGGCCACATATGCCCTGTCTCTGCTGAGAAA
 GCCTACCATGAACAGCTTCTGTAGCAGAGATCAACATGCTTGTGCTTGGAGCCAGCAACAGATGGTGA
 AATGTGACCCCTCGCCATGGTAAATACATGGCTTGTGCTGTTGTACCGTGGTACGTGGTTCCTCAAGA
 TGTCAATGCTGCCATTGCCACCATCAAGACCAAGCGTACCATCCAGTTTGTGGATTGGTGGCCCACTGGC
 TTCAAGGTTGGCATCAACTACCAGCCTCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAG
 CTGTGTGCATGCTGAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTACCT
 GATGTATGCCAAACGTGCCTTTGTTCACTGGTACGTTGGGGAGGGATGGAGGAAGGTGAGTTTTTCAGAG
 GCCCGTAGGACATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGG
 GTGAGGAAGAAGGAGAGGAATAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC234140 representing NM_001270399
 Red=Cloning site Green=Tags(s)

MRECISIHVQAGVQIGNACWELYLEHGIQPDGQMPQSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDL
 EPTVIDEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIDLVLDRIRKLADQCTGLQGFVLFHS
 FGGGTGSGFTSLLMERLSVDYGGKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMDNEAIY
 DICRRNLDIERPTYTNLNLIGQIVSSITASLRFDGALNVDLTFQTNLVPYPRIFPLATYAPVISAEK
 AYHEQLSVAEITNACFEPANQMVKCDPRHGKYMCCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTG
 FKVGINYQPPTVVPGGDLAKVQRAVCMLSNNTTAAEAWARLDHKFDLMYAKRAFVHWYVGEEMEEGEFSE
 AREDMAALEKDYEEVGVDSVEGEGEEGEEY

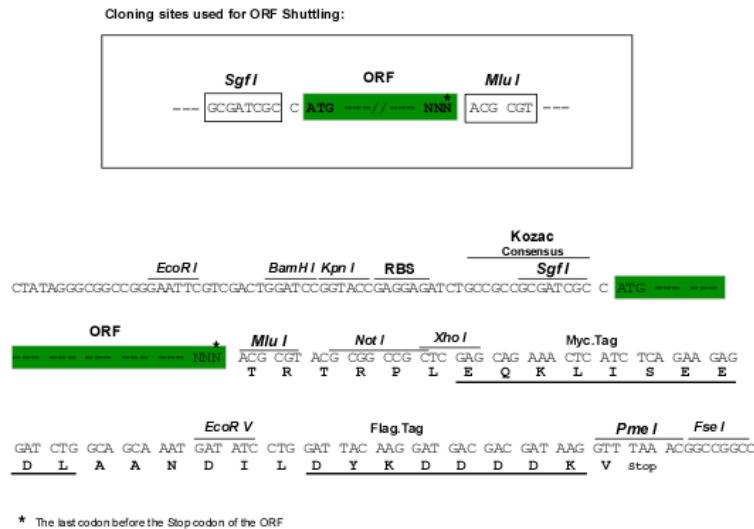
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6361_c12.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001270399

ORF Size: 1353 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_001270399.1](#), [NP_001257328.1](#)

RefSeq Size: 2490 bp

RefSeq ORF: 1356 bp

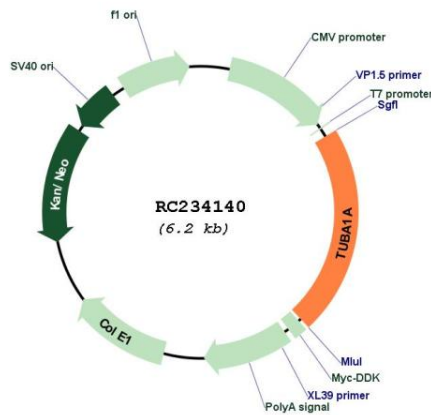
Locus ID: 7846

UniProt ID: [Q71U36](#)

Cytogenetics: 12q13.12

Protein Families:	Druggable Genome
Protein Pathways:	Gap junction, Pathogenic Escherichia coli infection
MW:	50.1 kDa
Gene Summary:	<p>Microtubules of the eukaryotic cytoskeleton perform essential and diverse functions and are composed of a heterodimer of alpha and beta tubulins. The genes encoding these microtubule constituents belong to the tubulin superfamily, which is composed of six distinct families. Genes from the alpha, beta and gamma tubulin families are found in all eukaryotes. The alpha and beta tubulins represent the major components of microtubules, while gamma tubulin plays a critical role in the nucleation of microtubule assembly. There are multiple alpha and beta tubulin genes, which are highly conserved among species. This gene encodes alpha tubulin and is highly similar to the mouse and rat Tuba1 genes. Northern blot studies have shown that the gene expression is predominantly found in morphologically differentiated neurologic cells. This gene is one of three alpha-tubulin genes in a cluster on chromosome 12q. Mutations in this gene cause lissencephaly type 3 (LIS3) - a neurological condition characterized by microcephaly, intellectual disability, and early-onset epilepsy caused by defective neuronal migration. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2017]</p>

Product images:



Circular map for RC234140