

Product datasheet for **RC208669**

alpha Tubulin (TUBA1A) (NM_006009) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	alpha Tubulin (TUBA1A) (NM_006009) 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:

>RC208669 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTTCAGATTGGCAATGCCTGCTGGGAGCTCT
 ACTGCCTGGAACACGGCATCCAGCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGA
 TTCCTTCAACACCTTCTTCAGTGAGACGGGGCTGGCAAGCATGTGCCCCGGGCAGTGTTGTAGACTTG
 GAACCCACAGTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTCCACCCTGAGCAACTTATCA
 CAGGCAAGGAAGATGCTGCCAATAACTATGCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCT
 CGTGTGGACCGAATTCGCAAGCTGGCCGACCAGTGCACGGTCTCCAGGGCTTCTTGGTTTTCCACAGC
 TTTGGTGGGGAACTGGTCTGGGTTACCTCCCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGA
 AGTCCAAGCTGGAGTTCTCTATTTACCCGGCGCCCAAGTTCCACAGCTGTAGTTGAGCCCTACAACCT
 CATCCTCACCACCACACCACCCTGGAGCACTCTGATTGTGCCTCATGGTAGACAATGAGGCCATCTAT
 GACATCTGTCGTAGAAACCTCGATATTGAGCGTCCAACCTATACTAACCTGAATAGGTTAATAGGTCAAA
 TTGTGTCCTCCATCACTGCTCCCTGAGATTTGATGGAGCCCTGAATGTTGACCTGACAGAATCCAGAC
 CAACCTGGTGCCCTATCCCCGCATCCACTTCCCTCTGGCCACATATGCCCTGTCATCTCTGCTGAGAAA
 GCCTACCATGAACAGCTTCTGTAGCAGAGATCAACATGCTTGTGCTTTGAGCCAGCCAACCATGAGTGA
 AATGTGACCCCTCGCCATGGTAAATACATGGCTTGTGCTGTTGTACCGTGGTACGTTGGTCCCAAAGA
 TGTCAATGCTGCCATTGCCACCATCAAGACCAAGCGTACCATCCAGTTTGTGGATTGGTGGCCCACTGGC
 TTCAAGGTTGGCATCAACTACCAGCCTCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAG
 CTGTGTGCATGCTGAGCAACACCACAGCATTGCTGAGGCTGGGCTCGCCTGGACCACAAGTTTGTGACCT
 GATGTATGCCAAACGTGCCTTTGTTCACTGGTAGGTTGGGGAGGGATGGAGGAAGGTGAGTTTTTCAGAG
 GCCCGTAGGACATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGG
 GTGAGGAAGAAGGAGAGGAATAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208669 protein sequence
 Red=Cloning site Green=Tags(s)

MRECISIHVQAGVQIGNACWELYLEHGIQPDGQMPQSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDL
 EPTVIDEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIDLVLDRIRKLADQCTGLQGLVFNH
 FGGGTGSGFTSLLMERLSVDYGGKSKLEFSIYPAPQVSTAVVEPYNSILTHTTLEHSDCAFMDNEAIY
 DICRRNLDIERPTYTNLNLIGQIVSSITASLRFDGALNVDLTFQTNLVPYPRIFPLATYAPVISA
 AYHEQLSVAEITNACFEPANQMVKCDPRHGKYMCCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTG
 FKVGINYQPPTVVPGGDLAKVQRAVCMLSNNTTAAEAWARLDHKFDLMYAKRAFVHWYVGEEMEEGEFSE
 AREDMAALEKDYEEVGVDSVEGEGEEGEEY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

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

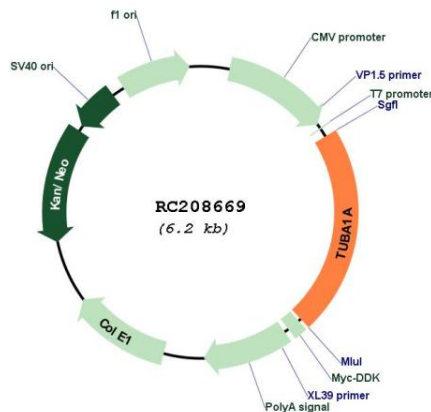
Restriction Sites:

Sgfl-Mlul

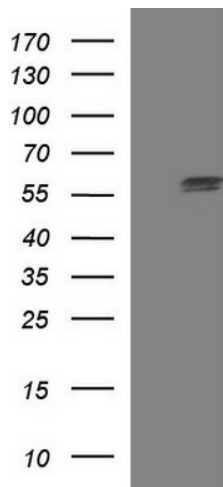
UniProt ID: [Q71U36](#)
Cytogenetics: 12q13.12
Domains: tubulin
Protein Families: Druggable Genome
Protein Pathways: Gap junction, Pathogenic Escherichia coli infection
MW: 50.1 kDa

Gene Summary: 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]

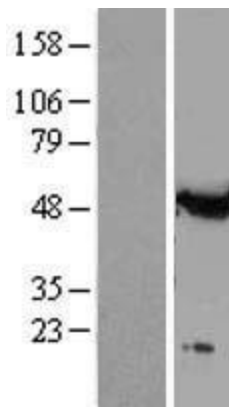
Product images:



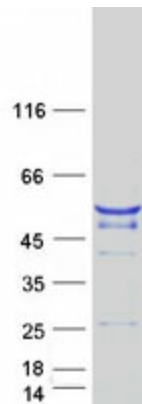
Circular map for RC208669



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TUBA1A (Cat# RC208669, 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-TUBA1A (Cat# [TA506605]). Positive lysates [LY416932] (100ug) and [LC416932] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY416932]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208669 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TUBA1A protein (Cat# [TP308669]). The protein was produced from HEK293T cells transfected with TUBA1A cDNA clone (Cat# RC208669) using MegaTran 2.0 (Cat# [TT210002]).