

## Product datasheet for **RC204072**

### alpha Tubulin (TUBA3C) (NM\_079836) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	alpha Tubulin (TUBA3C) (NM_079836) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	alpha Tubulin
Synonyms:	bA408E5.3; TUBA2; tubulin, alpha 2; tubulin, alpha 3c
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204072 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGTGAGTGTATCTCTATCCACGTGGGGCAGGCAGGAGTCCAGATCGGCAATGCCTGCTGGAACTGT  
ACTGCCTGGAACATGGAATTCAGCCCGATGGTCAGATGCCAAGTGATAAAAACCATTGGTGGTGGGGACGA  
CTCCTTCAACACGTTCTTCAGTGAGACTGGAGCTGGCAAGCACGTGCCAGAGCAGTGTTTGTGGACCTG  
GAGCCCACTGTGGTCGATGAAGTGCACAGGAACCTATAGGCAGCTCTCCACCCAGAGCAGCTGATCA  
CCGGGAAGGAAGATGCGCCAATAATTACGCCAGAGGCCATTACACCATCGGCAAGGAGATCGTCGACCT  
GGTCTGGACCGGATCCGCAAATGGCGGATCTGTGCACGGGACTGCAGGGCTTCCCTCATCTCCACAGT  
TTTGGGGTGGCACTGGCTCTGGTTCCGATCTCTGCTCATGGAGCGGCTCTCAGTGGATTACGGCAAGA  
AGTCCAAGCTAGAATTTGCCATTTACCCAGCCCCCAGGTCTCCACGGCCGTGGTGGAGCCCTACAACCTC  
CATCTGACCACCCACACGACCTGGAACATTCTGACTGTGCCTTCATGGTCGACAATGAAGCCATCTAT  
GACATATGTCGGCGCAACCTGGACATCGAGCGTCCACGTACACCAACCTCAATCGCCTGATTGGGCAGA  
TCGTGTCTCCATCACGGCCTCCCTGCGATTTGACGGGGCCCTGAATGTGGACTTGACGGAATCCAGAC  
CAACCTAGTGCCGTACCCCGCATCCACTTCCCCTGGCCACCTACGCCCCGGTCACTCAGCCGAGAAG  
GCCTACCAGCAGCAGCTGTCGGTGGCTGAGATCACCAATGCCTGCTTCGAGCCAGCCAATCAGATGGTCA  
AGTGTGACCCTCGCCACGGCAAGTACATGGCCTGCTGCATGTTGTACAGGGGGATGTGGTCCCGAAAGA  
TGTC AACGCGGCCATCGCCACCATCAAGACCAAGCGCACCATCCAGTTTGTAGATTGGTGGCCAACTGGA  
TTTAAGGTGGCATTAACTACCAGCCCCCAGCGTGGTCCCTGGGGGAGACCTGGCCAAGGTGCAGCGGG  
CTGTGTGCATGCTGAGCAACACCACGGCCATCGCGGAGGCCTGGGCTCGCCTGGACCTGGCAGCTCTGGA  
GAAGGATTATGAAGAGGTGGCGTGATTCCGTGGAAGCCGAGGCTGAAGAAGGTGAAGAATAC

**ACGGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC204072 protein sequence  
Red=Cloning site Green=Tags(s)

MRECISIHVGQAGVQIGNACWEL YCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDL  
 EPTVVDEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIVDLVLDRIKRLADLCTGLQGFLIFHS  
 FGGGTGSGFASLLMERLSVDYGGKSKLEFAIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMDNEAIY  
 DICRRNLDIERPITYTNLNLRLIGQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFLATYAPVISA EK  
 AYHEQLSVAEITNACFEPANQMVKCDPRHGKYMCCMLYRGDVVPKDVNAAIATIKTKRTIQFVDCPTG  
 FKVGINYQPPTVVPGGDLAKVQRAVCMLSNNTTAIAEAWARLDLAALEKDYEEVGVDSVEAEAEEGEEY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6422\\_a08.zip](https://cdn.origene.com/chromatograms/mk6422_a08.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_079836

**ORF Size:** 1254 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\\_079836.1](#), [NP\\_524575.1](#)

**RefSeq Size:** 1408 bp

**RefSeq ORF:** 1256 bp

**Locus ID:** 7278

**Cytogenetics:** 13q12.11

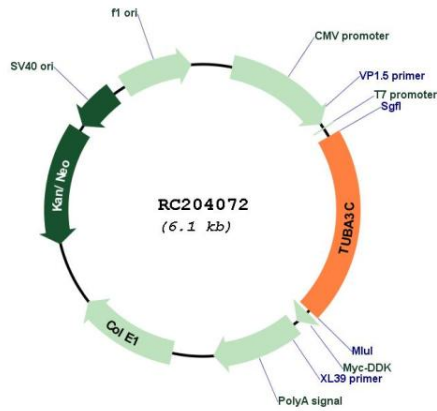
**Protein Families:** Druggable Genome, Stem cell - Pluripotency

**Protein Pathways:** Gap junction, Pathogenic Escherichia coli infection

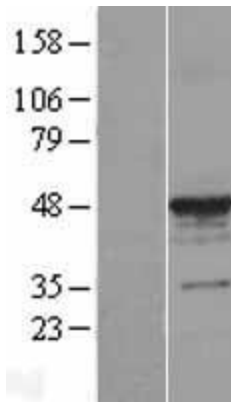
**MW:** 46.1 kDa

**Gene Summary:** Microtubules of the eukaryotic cytoskeleton perform essential and diverse functions and are composed of a heterodimer of alpha and beta tubulin. The genes encoding these microtubule constituents are part of 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 and they are highly conserved among and between species. This gene is an alpha tubulin gene that encodes a protein 99% identical to the mouse testis-specific Tuba3 and Tuba7 gene products. This gene is located in the 13q11 region, which is associated with the genetic diseases Clouston hidrotic ectodermal dysplasia and Kabuki syndrome. [provided by RefSeq, Jul 2008]

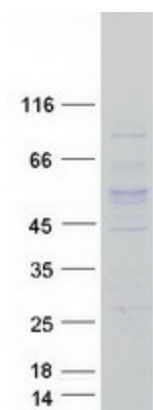
Product images:



Circular map for RC204072



Western blot validation of overexpression lysate (Cat# [LY409205]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204072 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TUBA3C protein (Cat# [TP304072]). The protein was produced from HEK293T cells transfected with TUBA3C cDNA clone (Cat# RC204072) using MegaTran 2.0 (Cat# [TT210002]).