

## Product datasheet for **RC200746**

### alpha Tubulin (TUBA4A) (NM\_006000) Human Tagged ORF Clone

#### Product data:

|                           |                                                           |
|---------------------------|-----------------------------------------------------------|
| Product Type:             | Expression Plasmids                                       |
| Product Name:             | alpha Tubulin (TUBA4A) (NM_006000) Human Tagged ORF Clone |
| Tag:                      | Myc-DDK                                                   |
| Symbol:                   | alpha Tubulin                                             |
| Synonyms:                 | ALS22; H2-ALPHA; TUBA1                                    |
| Mammalian Cell Selection: | Neomycin                                                  |
| Vector:                   | pCMV6-Entry (PS100001)                                    |
| E. coli Selection:        | Kanamycin (25 ug/mL)                                      |



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**ORF Nucleotide Sequence:**

>RC200746 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGCGTGAATGCATCTCAGTCCACGTGGGGCAGGCAGGTGCCAGATGGGCAATGCCTGCTGGGAGCTCT  
 ATTGCTTGGAAACATGGGATTGAGCCTGATGGGCAGATGCCAGTGACAAGACCATTGGTGGAGGGGACGA  
 CTCCTTACCACCTTCTTCTGTGAAACTGGTGCTGAAAAACACGTACCCCGGCAGTTTTTGTGGATCTG  
 GAGCTACGGTCAATTGATGAGATCCGAAATGGCCATACCGACAGCTCTCCACCCAGAGCAGCTCATCA  
 CTGGGAAAGAGGATGCTGCCAACAACTATGCCCGTGGTCACTATACCATTGGCAAGGAGATCATTGACCC  
 AGTGTGGATCGGATCCGCAAGCTGTCTGACCAGTGCACAGGACTTCAGGGCTTCTGGTGTCCACAGC  
 TTTGGTGGGGGACTGGCTCTGGCTTACCTCACTCTGATGGAGCGGCTCTCTGTTGACTATGGCAAGA  
 AATCCAAGCTGGAATTCTCCATCTACCCAGCCCCCAGGTGTCTACAGCCGTGGTCGAGCCCTACAACCT  
 TATCCTGACCACCCACACCCTGGAGCACTCAGACTGTGCCTTCATGGTGGACAACGAAGCAATCTAT  
 GACATCTGCCCGCCGAACCTAGACATCGAGCGCCAACCTACACCAACCTCAATCGCCTCATTAGCCAAA  
 TTGTCTCCTCCATCACAGCTTCTCTGCGCTTTGACGGGGCCCTCAATGTGGACCTGACAGAGTCCAGAC  
 CAACCTGGTGCCCTACCCTCGCATCCACTTCCCCTGGCCACCTATGCACCAGTCATCTCTCGAGAAAAG  
 GCATACCACGAGCAGCTGTCCGTGGCAGAGATCAACATGCCTGCCTTGGAGCTGCCAACAGATGGTAA  
 AGTGTGATCCCCGGCACGGCAAGTACATGGCCTGCTGCCTGTGTACCGTGGAGATGTGGTGGCCAAAGGA  
 TGTCAACGCTGCCATTGCCGCCATCAAGACCAAGCGCAGCATTAGTTTGTGGACTGGTGGCCACAGGC  
 TTCAAGGTTGGTATCAACTACCAGCCTCCACTGTGGTGCCTGGGGTGACCTGGCCAAGGTGCAGCGTG  
 CCGTGTGCATGCTGAGCAACACGACCGCCATCGCCGAGGCTGGGCCCGCCTGGACCACAAGTTCGACCT  
 GATGTATGCCAAGAGGGGTTTTGTGCACTGGTATGTGGGTGAGGGCATGGAGGAGGGTGAATTCCTCCGAG  
 GCCCGTGAAGGATATGGCTGCCCTGGAGAAGGATTATGAGGAGGTGGGCATCGACTCCTATGAGGACGAGG  
 ATGAGGGAGAAGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC200746 protein sequence  
 Red=Cloning site Green=Tags(s)

MRECISVHVQAGVQMGNAWELCYLEHGIQPDGQMPQSDKTIGGGDSSFTTFFCETGAGKHVPRAVFVDL  
 EPTVIDEIRNGPYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDPVLDRIRKLSAQCTGLQGLVFHS  
 FGGGTGSGFTSLLMERLSVDYGGKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMDNEAIY  
 DICRRNLDIERPTYTNLNLISQIVSSITASLRFDGALNVDLTFQTNLVPYPRIFPLATYAPVISAER  
 AYHEQLSVAEITNACFEPANQMVKCDPRHGKYMCCLLYRGDVVPKDVNAIAAIKTKRSIQFVDWCPTG  
 FKVGINYQPPTVVPGGDLAKVQRAVCMLSNNTAIAEAWARLDHKFDLMYAKRAFVHWYVGEEMEEGEFSE  
 AREDMAALEKDYEEVGIDSYEDEDEGEE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6051\\_f03.zip](https://cdn.origene.com/chromatograms/mk6051_f03.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_006000

**ORF Size:** 1344 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\\_006000.3](#)

**RefSeq Size:** 2076 bp

**RefSeq ORF:** 1347 bp

**Locus ID:** 7277

**UniProt ID:** [P68366](#)

**Cytogenetics:** 2q35

**Domains:** tubulin

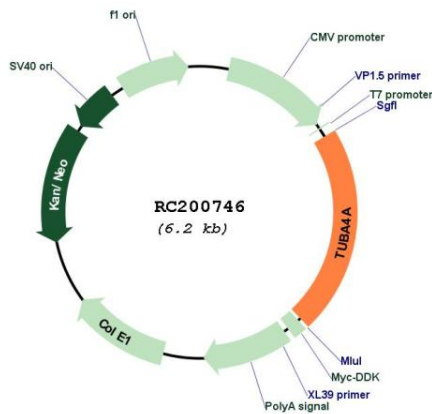
**Protein Families:** Druggable Genome

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

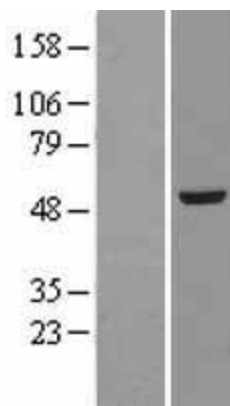
**MW:** 49.9 kDa

**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 encodes an alpha tubulin that is a highly conserved homolog of a rat testis-specific alpha tubulin. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2013]

**Product images:**



Circular map for RC200746



Western blot validation of overexpression lysate (Cat# [LY401816]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200746 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).