

## Product datasheet for **RG238201**

### alpha Tubulin (TUBA4A) (NM\_001278552) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	alpha Tubulin (TUBA4A) (NM_001278552) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	alpha Tubulin
Synonyms:	ALS22; H2-ALPHA; TUBA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG238201 representing NM_001278552. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGGCAATGCCTGCTGGGAGCTCTATTGCTTGGAAACATGGGATTCAGCCTGATGGGCAGATGCCAGT
GACAAGACCATTGGTGGAGGGGACGACTCCTTCACCACCTTCTTCTGTGAAACTGGTGTGGAAAACAC
GTACCCCGGGCAGTTTTTGTGGATCTGGAGCCTACGGTCATTGATGAGATCCGAAATGGCCCATACCGA
CAGCTCTCCACCAGAGCAGCTCATCACTGGGAAAGAGGATGCTGCCAACAATATGCCCGTGGTCAC
TATACCATTGGCAAGGAGATCATTGACCCAGTGTGGATCGGATCCGCAAGCTGTCTGACCAGTGCACA
GGACTTCAGGGCTTCTGGTGTCCACAGCTTTGGTGGGGCAGTGGCTCTGGCTTCACCTCACTCCTG
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GTGTCTACAGCCGTGGTGCAGCCCTACAACCTATCCTGACCACCCACACCACCTGGAGCACTCAGAC
TGTGCCTTCATGGTGGACAACGAAGCAATCTATGACATCTGCCGCCGCAACCTAGACATCGAGCGCCCA
ACCTACACCAACCTCAATCGCCTCATTAGCCAAATTTGCTCCTCCATCACAGCTTCTCTGCGCTTTGAC
GGGGCCCTCAATGTGGACCTGACAGAGTTCAGACCAACCTGGTGCCTACCTCGCATCCACTTCCCC
CTGGCCACCTATGCACCAGTCACTCTGCAGAAAAGGCATACCACGAGCAGCTGTCCGGTGGCAGAGATC
ACCAATGCCTGCTTTGAGCCTGCCAACCAGATGGTAAAGTGTGATCCCCGGCACGGCAAGTACATGGCC
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AAGCGCAGCATTCAAGTTTGTGGACTGGTGCCTCCACAGGCTTCAAGGTTGGTATCAACTACCAGCCTCC
ACTGTGGTGCCTGGGGGTGACCTGGCCAAGGTGCAGCGTGCCGTGTGCATGCTGAGCAACACGACCGCC
ATCGCCGAGGCGCTGGCCCGCTGGACCACAAGTTCGACCTGATGTATGCCAAGAGGGCGTTTGTGCAC
TGGTATGTGGGTGAGGGCATGGAGGAGGTGAGTTCTCCGAGGCCGTGAGGATATGGCTGCCCTGGAG
AAGGATTATGAGGAGGTGGGCATCGACTCCTATGAGGACGAGGATGAGGGAGAAGAA
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```



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**Protein Sequence:** >Peptide sequence encoded by RG238201  
 Blue=ORF Red=Cloning site Green=Tag(s)

MGNACWELYLEHGIQPDGQMPSDKTIGGGDSFTTFFCETGAGKHVPRAVFDLEPTVIDEIRNGPYR  
 QLFHPEQLITGKEDAANNYARGHYTIGKEIIDPVLDRIRKLSQCTGLQGFLVFHSFGGTTSGFTSL  
 MERLSVDYGGKSKLEFSIYPAPQVSTAVVEPYNSILTHTTLEHSDCAFMDNEAIYDICRRNLIERP  
 TYTNLNRLLISQIVSSITASLRFDGALNVDLTFQTNLVPYPRIHFLATYAPVISA EKAYHEQLSVAEI  
 TNACFEPANQMKCDPRHGKYMACL L YRGDVVPKDVNAIAAIKTKRSIQFVDWCPTGFKVGINYQPP  
 TVVPGDLAKVQRAVCMLSNNTAIAEAWARLDHKFDL MYAKRAVHVWYVGE GMEEGEFSEAREDMAALE  
 KDYEEVGI DSYEDEDEGEE  
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV  
 MGYGFYHFGTYP SGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED  
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001278552

**ORF Size:** 1299 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).

**RefSeq:** [NM\\_001278552.1](#), [NP\\_001265481.1](#)

RefSeq Size: 2499 bp

RefSeq ORF: 1302 bp

Locus ID: 7277

UniProt ID: [P68366](#)

Cytogenetics: 2q35

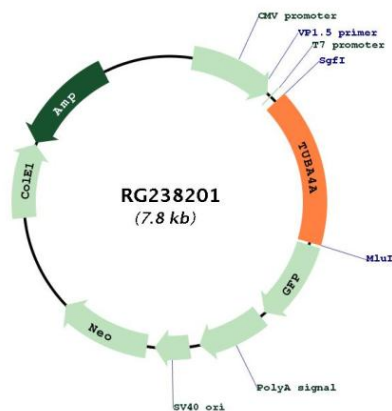
Protein Families: Druggable Genome

Protein Pathways: Gap junction, Pathogenic Escherichia coli infection

MW: 48.8 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 RG238201