

Product datasheet for **SC332921**

alpha Tubulin (TUBA1A) (NM_001270400) Human Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: alpha Tubulin (TUBA1A) (NM_001270400) Human Untagged Clone
Tag: Tag Free
Symbol: alpha Tubulin
Synonyms: B-ALPHA-1; LIS3; TUBA3
Vector: pCMV6-Entry (PS100001)
Fully Sequenced ORF: >SC332921 representing NM_001270400.
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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ATGCCAAGTGACAAGACCATTGGGGGAGGAGATGATTCCCTTCAACACCTTCTTCAGTGAGACGGGGCT
GGCAAGCATGTGCCCGGCGAGTGTGGTAGACTTGGAAACCCACAGTCATTGATGAAGTTCGCACTGGC
ACCTACCGCCAGCTCTCCACCCTGAGCAACTTATCACAGGCAAAGAAGATGCTGCCAATAACTATGCC
CGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTCGTGTGGACCGAATTCGCAAGCTGGCCGAC
CAGTGCACGGGTCTCCAGGGCTTCTGGTTTTCCACAGCTTTGGTGGGGAACTGGTTCTGGGTTACC
TCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCTATTTACCCG
GGCCCCAGGTTTCCACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCACACCACCTGGAG
CACTCTGATTGTGCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCTGAGAAACCTCGATATT
GAGCGTCCAACCTATACTAACCTGAATAGGTTAATAGGTCAAATTGTGTCTCCATCACTGCTTCCCTG
AGATTTGATGGAGCCCTGAATGTTGACCTGACAGAATTCAGACCAACCTGGTGCCTATCCCCGCATC
CACTTCCCTCTGGCCACATATGCCCTGTCTCTGCTGAGAAAGCCTACCATGAACAGCTTTCTGTA
GCAGAGATCACCAATGCTTGCTTTGAGCCAGCCAACCAGATGGTGAATGTGACCCTCGCCATGGTAAA
TACATGGCTTGTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGCAATGCTGCCATTGCCACC
ATCAAGACCAAGCGTACCATCCAGTTTGTGGATTGGTGGCCCACTGGCTTCAAGTTGGCATCAACTAC
CAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGTGAGCAAC
ACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTACCTGATGTATGCCAAACGTGCC
TTTGTTCACTGGTACGTTGGGGAGGGGATGGAGGAAGGTGAGTTTTTCCAGAGGCCCGTGGAGACATGGCT
GCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAG
GAATACTAA
  
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Restriction Sites: Sgfl-MluI
ACCN: NM_001270400
Insert Size: 1251 bp



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OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<ol style="list-style-type: none">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_001270400.1
RefSeq Size:	2018 bp
RefSeq ORF:	1251 bp
Locus ID:	7846
UniProt ID:	Q71U36
Cytogenetics:	12q13.12
Protein Families:	Druggable Genome
Protein Pathways:	Gap junction, Pathogenic Escherichia coli infection
MW:	46.3 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]

Transcript Variant: This variant (3) contains an alternate segment at its 5' end which results in the use of an in-frame downstream start codon, compared to variant 1. This variant encodes a protein (isoform 2) with a shorter N-terminus, compared to isoform 1.