

# Recombinant Full Length Human TUBA1A Protein, GST-tagged

Cat. No. TUBA1A-709HF Lot. No. (See product label)

## SPECIFICATION

**Product Overview** Recombinant full length Human TUBA1A(1 a.a. - 451 a.a.) fused with GST tag at N-terminal was expressed in Wheat Germ.

**Species** Human

**Source** In Vitro Cell Free System

**ProteinLength** 451 amino acids

### Description

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.

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<b>Form</b>	50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.
<b>Molecular Mass</b>	75.24 kDa
<b>AA Sequence</b>	MRECISIHVG QAGVQIGNAC WELYCLEHGI QPDGQMPSDK TIGGGDDSFN TFFSETGAGK HVPRAVFVDL EPTVIDEVRT GTYRQLFHPE QLITGKEDAA NNYARGHYTI GKEIIDLVLD RIRKLADQCT GLQGFLVFHS FGGGTGSGFT SLLMERLSVD YGKKSLEFS IYPAPQVSTA VVEPYSILT THTTLEHSDC AFMVDNEAIY DICRRNLDIE RPTYTNLNL IGQIVSSITA SLRFDGALNV DLTEFQTNLV PYPRIHFPLA TYAPVISA EK AYHEQLSVAE ITNACFEPAN QMVKCDPRHG KYMACCLLYR GDVVPKDVNA AIATIKTKRT IQFVDWCPTG FKVGINYQPP TVVPGDLAK VQRAVCMLSN TTAIAEAWAR LDHKFDLMYA KRAVHWYVG EGMEEGEFSE AREDMAALEK DYEEVGVDSV EGE GEEEGEE Y
<b>Applications</b>	Enzyme-linked Immunoabsorbent Assay; Western Blot (Recombinant protein); Antibody Production; Protein Array
<b>Storage</b>	Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

## GENE INFORMATION

<b>Gene Name</b>	TUBA1A tubulin, alpha 1a [ <i>Homo sapiens</i> ]
<b>Official Symbol</b>	TUBA1A
<b>Synonyms</b>	TUBA1A; tubulin, alpha 1a; tubulin alpha-1A chain; B ALPHA 1; FLJ25113; TUBA3; tubulin; alpha; brain specific; hum-a-tub1; hum-a-tub2; alpha-tubulin 3; tubulin, alpha 3; tubulin B-alpha-1; tubulin alpha-3 chain; tubulin, alpha, brain-specific; LIS3; B- ALPHA-1
<b>Gene ID</b>	7846

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<b>mRNA Refseq</b>	NM_006009
<b>Protein Refseq</b>	NP_006000
<b>MIM</b>	602529
<b>UniProt ID</b>	Q71U36

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