

## Product datasheet for **CF506605**

### alpha Tubulin (TUBA1A) Mouse Monoclonal Antibody [Clone ID: OTI2C8]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI2C8
Applications:	IHC, WB
Recommended Dilution:	WB 1:400~4000, IHC 1:150
Reactivity:	Human, Dog, Rat, Monkey, Mouse
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human TUBA1A(NP_006000) produced in HEK293T cell
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	50 kDa
Gene Name:	tubulin alpha 1a
Database Link:	<a href="#">NP_006000</a> <a href="#">Entrez Gene 22142 Mouse</a> <a href="#">Entrez Gene 64158 Rat</a> <a href="#">Entrez Gene 608147 Dog</a> <a href="#">Entrez Gene 574194 Monkey</a> <a href="#">Entrez Gene 7846 Human</a> <a href="#">Q71U36</a>



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**Background:**

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 blotting 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, mental retardation, and early-onset epilepsy and caused by defective neuronal migration. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2012]

**Synonyms:**

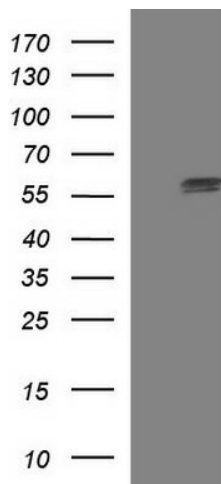
B-ALPHA-1; LIS3; TUBA3

**Protein Families:**

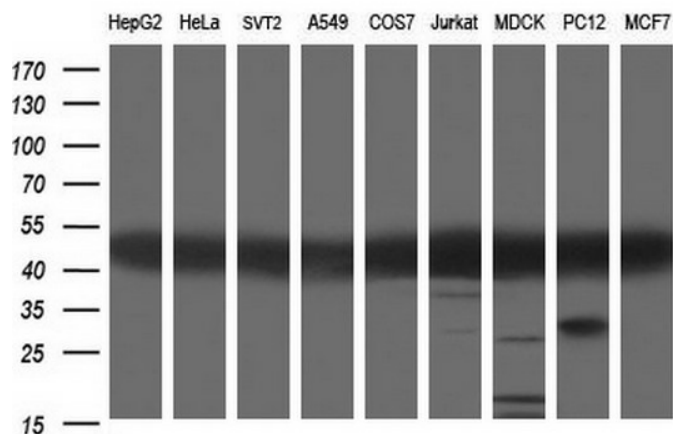
Druggable Genome

**Protein Pathways:**

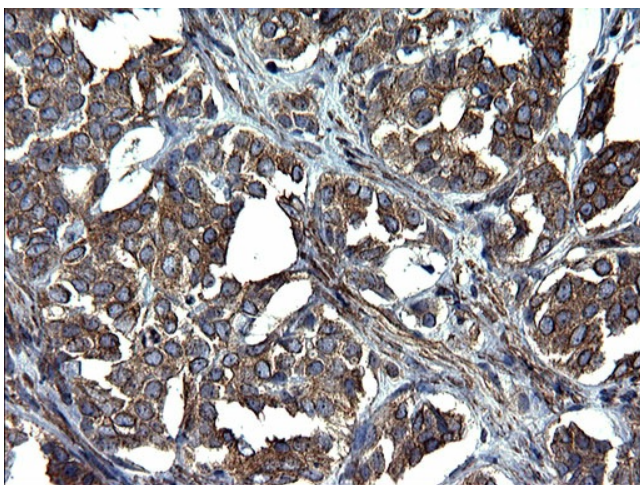
Gap junction, Pathogenic Escherichia coli infection

**Product images:**

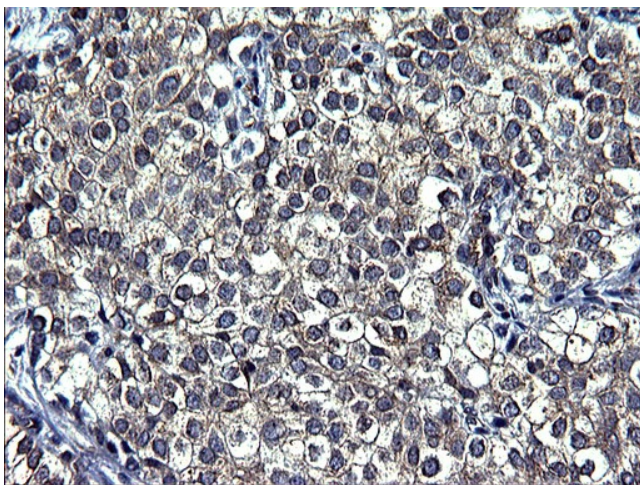
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TUBA1A (Cat# [RC208669], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TUBA1A (Cat# [TA506605]). Positive lysates [LY416932] (100ug) and [LC416932] (20ug) can be purchased separately from OriGene.



Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-TUBA1A monoclonal antibody (HepG2: human; HeLa: human; SVT2: mouse; A549: human; COS7: monkey; Jurkat: human; MDCK: canine; PC12: rat; MCF7: human).

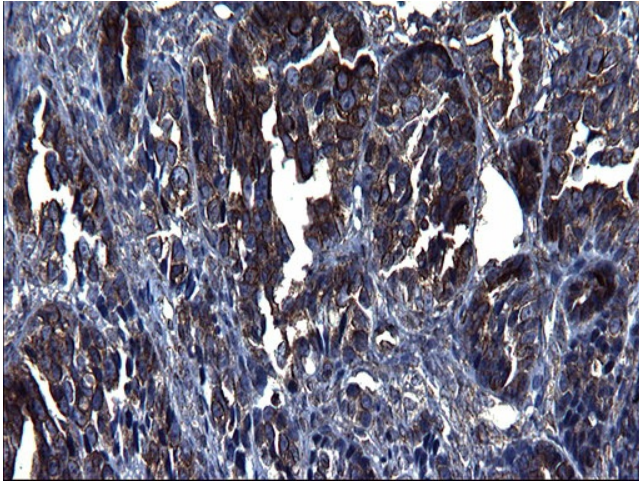


Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human breast tissue using anti-TUBA1A mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris, pH8.5, 120°C for 3min, [TA506605])

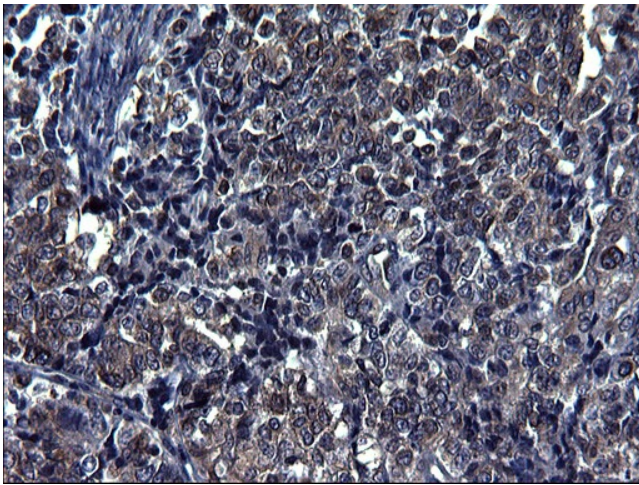


Immunohistochemical staining of paraffin-embedded Carcinoma of Human liver tissue using anti-TUBA1A mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris, pH8.5, 120°C for 3min, [TA506605])

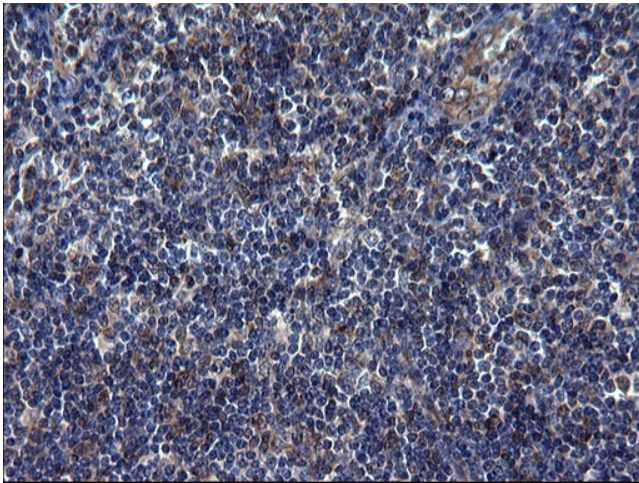




Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human ovary tissue using anti-TUBA1A mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris, pH8.5, 120°C for 3min, [TA506605])



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human endometrium tissue using anti-TUBA1A mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris, pH8.5, 120°C for 3min, [TA506605])



Immunohistochemical staining of paraffin-embedded Human lymph node tissue within the normal limits using anti-TUBA1A mouse monoclonal antibody. (Heat-induced epitope retrieval by 1mM EDTA in 10mM Tris, pH8.5, 120°C for 3min, [TA506605])