



Anti-TUBA1A (N-terminal) polyclonal antibody (DPAB-L20051)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Antigen 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 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]

Immunogen	Antibody was raised against an 18 amino acid peptide near the amino terminus of human alpha-tubulin
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human
Conjugate	Unconjugated
Applications	ELISA: suitable
Format	Buffered aqueous solution

Concentration	1 mg/mL
Size	100 µg
Buffer	Supplied at 1 mg/mL in PBS with 0.02% sodium azide.
Preservative	0.02% Sodium Azide
Storage	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C

GENE INFORMATION

Gene Name	TUBA1A tubulin, alpha 1a [Homo sapiens (human)]
Official Symbol	TUBA1A
Synonyms	TUBA1A; tubulin, alpha 1a; LIS3; TUBA3; B-ALPHA-1; tubulin alpha-1A chain; hum-a-tub1; hum-a-tub2; tubulin B-alpha-1; tubulin alpha-3 chain; tubulin, alpha, brain-specific
Entrez Gene ID	7846
Protein Refseq	NP_001257328
UniProt ID	Q71U36
Pathway	Cell Cycle; Centrosome maturation; Chaperonin-mediated protein folding; Cooperation of Prefoldin and TriC/CCT in actin and tubulin folding; Formation of tubulin folding intermediates by CCT/TriC; G2/M Transition; Gap junction; Loss of Nlp from mitotic centrosomes
Function	GTP binding; GTPase activity; protein binding; protein domain specific binding; structural constituent of cytoskeleton; structural molecule activity