

Rabbit Anti-Beta tubulin /Biotin Conjugated antibody

SL4511R-Bio

Product Name	Anti-Beta tubulin /Biotin
Chinese Name	生物素标记的微管蛋白 β tubulin/Tubulin β 抗体
Alias	Beta 4 tubulin; Tubulin-beta; Tubulin beta; Beta 5 tubulin; BetaTubulin; Beta-Tubulin; dJ40E16.7; TUBB; TUBB2; TUBB2A; TUBB5; tubulin beta 2A; Tubulin beta chain; Tubulin beta-5 chain; TUBB4A; TUBB4; Tubulin 5 beta; Tubulin beta-4 chain; TBB4A_HUMAN; Tubulin beta-4A chain.
Product Type	Internal reference anti
Research Area	immunology Neurobiology Cytoskeleton
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human,Mouse,Rat
Applications	WB=1:5000-20000, IHC-P=1:100-500, IHC-F=1:100-500, IF=1:100-500, Flow-Cyt=1ug/test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	55kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human tubulin Beta
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Storage	
Product Detail	background: Microtubules are constituent parts of the mitotic apparatus, cilia, flagella, and

elements of the cytoskeleton. They consist principally of 2 soluble proteins, alpha- and beta-tubulin, each of about 55,000 kDa. Antibodies against beta Tubulin are useful as loading controls for Western Blotting. However it should be noted that levels of beta Tubulin may not be stable in certain cells. For example, expression of tubulin in adipose tissue is very low (Spiegelman and Farmer, Cell, 1982, 29(1):53-60) and therefore beta Tubulin should not be used as loading control for these tissues.

Function:

Tubulin is the major constituent of microtubules. It binds two moles of GTP, one at an exchangeable site on the beta chain and one at a non-exchangeable site on the alpha chain.

Subunit:

Dimer of alpha and beta chains. May interact with RNABP10 (By similarity). Interacts with PIFO. Interacts with MX1 (By similarity).

Subcellular Location:

Cytoplasm, cytoskeleton.

Tissue Specificity:

Ubiquitously expressed with highest levels in spleen, thymus and immature brain.

Post-translational modifications:

Some glutamate residues at the C-terminus are polyglutamylated. This modification occurs exclusively on glutamate residues and results in polyglutamate chains on the gamma-carboxyl group. Also monoglycylated but not polyglycylated due to the absence of functional TLL10 in human. Monoglycylation is mainly limited to tubulin incorporated into axonemes (cilia and flagella) whereas glutamylation is prevalent in neuronal cells, centrioles, axonemes, and the mitotic spindle. Both modifications can coexist on the same protein on adjacent residues, and lowering glycylation levels increases polyglutamylated, and reciprocally. The precise function of such modifications is still unclear but they regulate the assembly and dynamics of axonemal microtubules (Probable).

Similarity:

Belongs to the tubulin family.

Database links:

[Entrez Gene: 203068](#) Human

[Omid: 191130](#) Human

[SwissProt: P07437](#) Human

[SwissProt: P99024](#) Mouse

[SwissProt: P69897](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

结构蛋白 (Structural Proteins)

tubulin 是一种大量存在于哺乳动物脑组织中的微管亚基蛋白，在结构上是由两个极为相近的 α 和 β 亚基组成的二聚体、多聚体形成微管细丝，是微管的主要成分。

微管蛋白是球形分子，有两种类型： α 微管蛋白(α -tubulin)货号：SL0195R 和 β 微管蛋白(β -tubulin)，这两种微管蛋白具有相似的三维结构，能够紧密地结合成二聚体，作为微管组装的亚基。 α 亚基由 450 个氨基酸组成， β 亚基是由 455 个氨基酸组成，这两种亚基有 35~40%的氨基酸序列同源，表明编码它们的基因可能是由同一原始祖先演变而来。