



Rabbit Anti-Beta Tubulin antibody

SL0715R

Product Name:	Beta Tubulin
Chinese Name:	微管蛋白抗体
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.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1µg/TestIF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	50kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Tubulin-Beta:31-130/1444
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	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 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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. Interacts with PIFO. Interacts with MX1.

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 TTL10 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.

SWISS:

Q13509

Gene ID:

203068

Database links:

[Entrez Gene: 396254](#)Chicken

[Entrez Gene: 203068](#)Human

[Entrez Gene: 380418](#)Xenopus laevis

[Omim: 191130](#)Human

[SwissProt: P07437](#)Human

[SwissProt: P99024](#)Mouse

[SwissProt: Q767L7](#)Pig

[SwissProt: P69897](#)Rat

[SwissProt: Q91575](#)Xenopus laevis

[Unigene: 636480](#)Human

[Unigene: 706187](#)Human

[Unigene: 714425](#)Human

[Unigene: 46552](#)Xenopus laevis

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: bs-

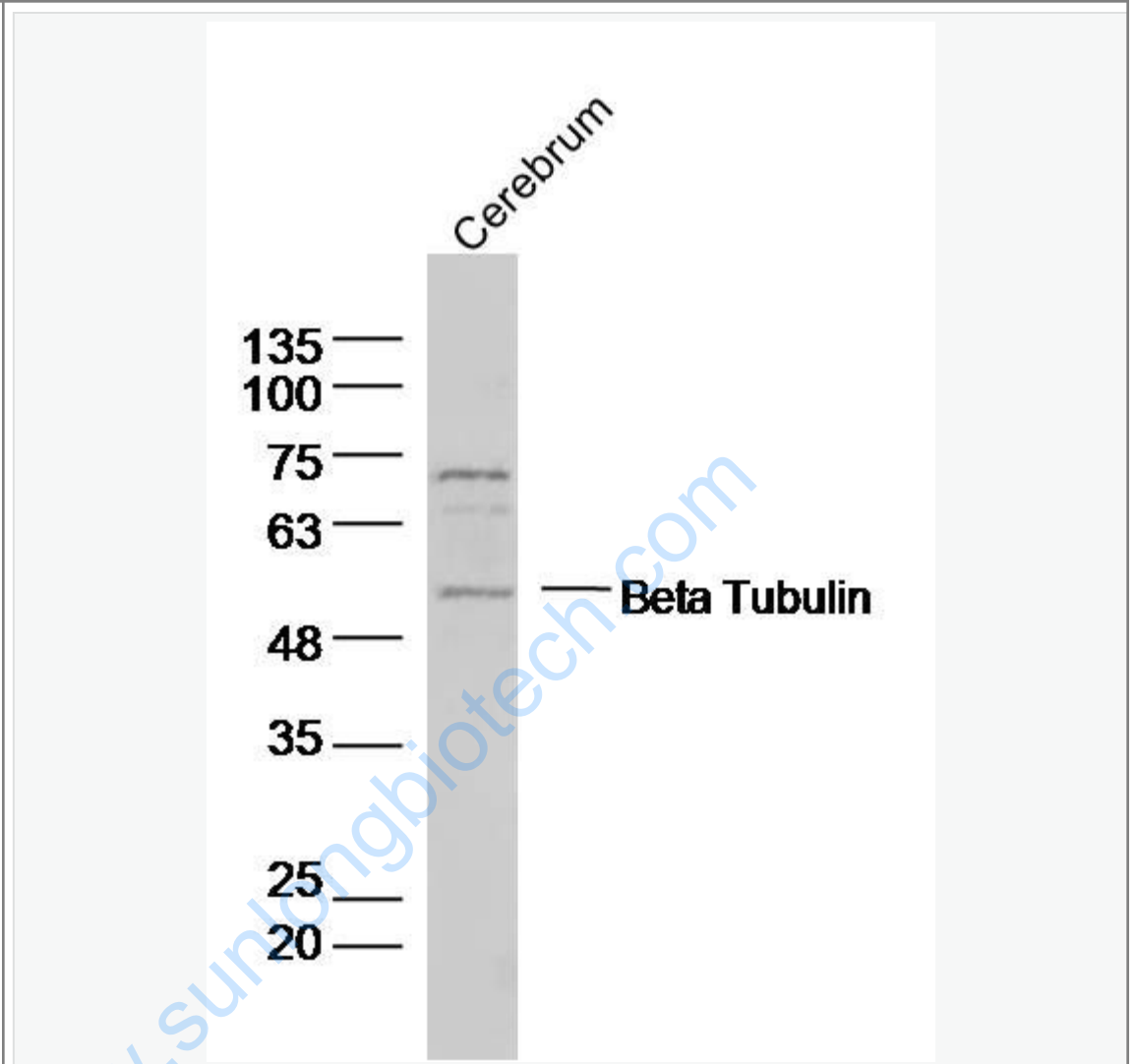
0195R和 β 微管蛋白(β -tubulin), 这两种微管蛋白具有相似的三维结构,

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。

Picture:



Sample:

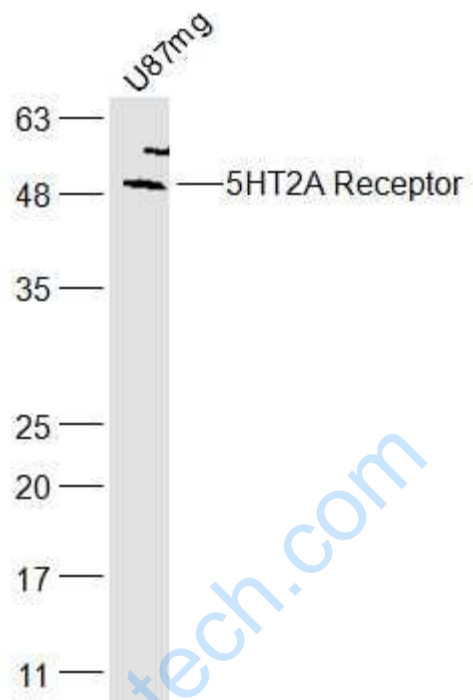
Cerebrum (Rat) Lysate at 40 ug

Primary: Anti- Beta Tubulin (SL0715R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 50 kD

Observed band size: 50 kD



Sample:

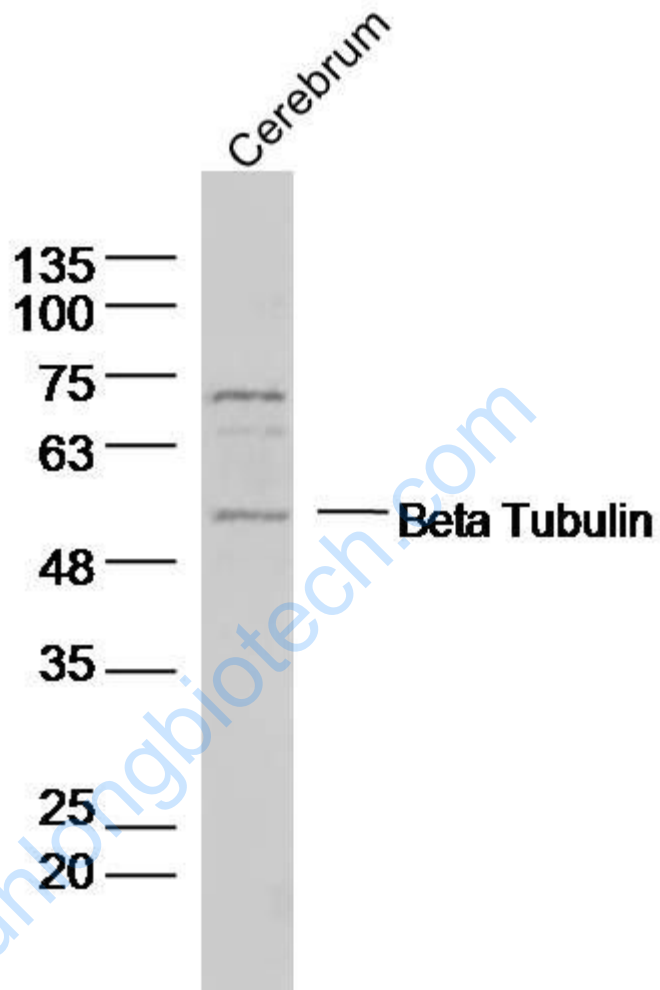
U87MG(Human) Cell Lysate at 30 ug

Primary: Anti-5HT_{2A} Receptor (SL0715R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 50 kD

Observed band size: 50 kD



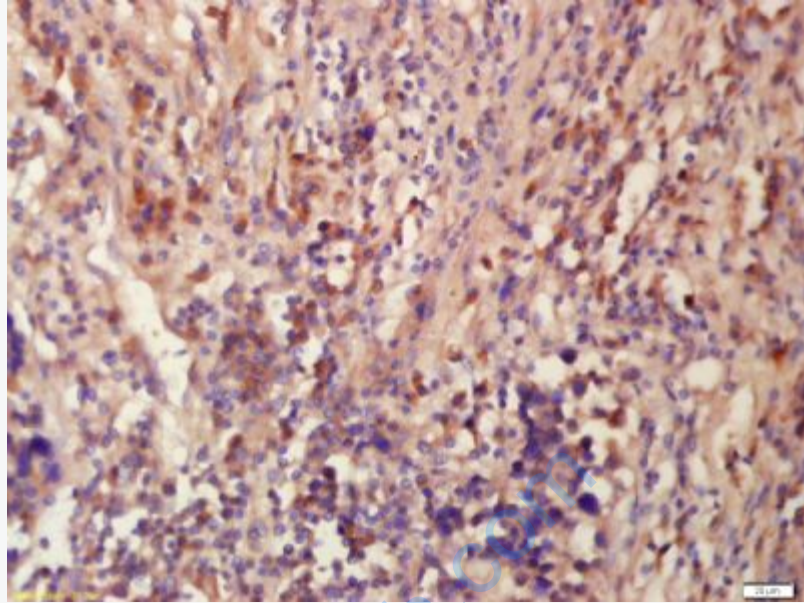
Sample: Cerebrum (Mouse) Lysate at 40 ug

Primary: Anti-Beta Tubulin (SL0715R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 50 kD

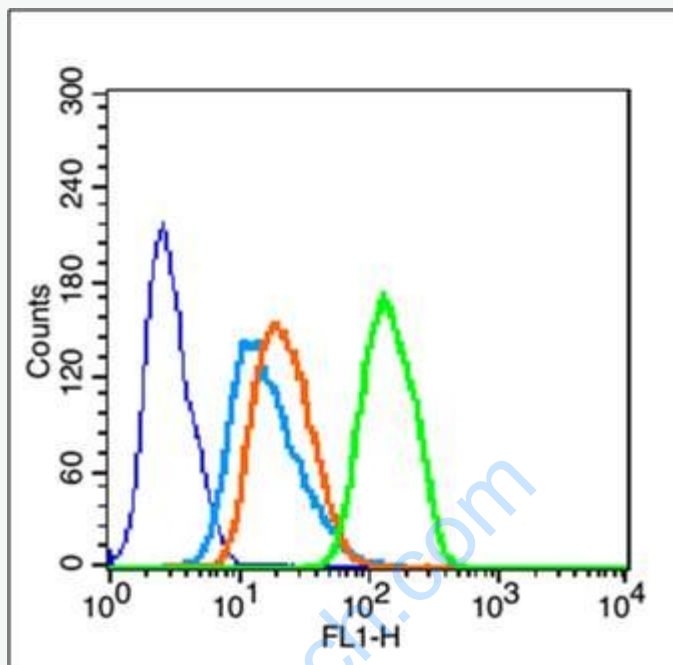
Observed band size: 50 kD



Tissue/cell: human lung carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-Tubulin-Beta Polyclonal Antibody, Unconjugated(SL0715R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control (blue line): HeLa

Primary Antibody (green line): Rabbit Anti-Beta Tubulin antibody (SL0715R)

Dilution: $1\mu\text{g} / 10^6$ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-FITC

Dilution: $1\mu\text{g} / \text{test}$.

Protocol

The cells were fixed with 70% ethanol (Overnight at 4°C) and then permeabilized with 90% ice-cold methanol for 30 min on ice. Cells stained with Primary Antibody for 30 min at room temperature. The cells were then incubated in 1 X PBS/2%BSA/10% goat serum to block non-specific protein-protein interactions followed by the antibody for 15 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

