

Rabbit Anti-Tubulin-alpha (Loading Control)antibody

SL0159R

Product Name Tubulin-alpha (Loading Control)

Chinese Name 微管蛋白 α /Tubulin α (内参) 抗体

Alias Alpha tubulin 1; Alpha-tubulin 1; Detyrosinated alpha Tubulin; FLJ30169; H2 alpha; TBA4A_HUMAN; Testis specific alpha tubulin; Testis-specific alpha-tubulin; TUBA 4A; TUBA1; Tuba4a; Tubulin alpha 1 (testis specific); Tubulin alpha 1; Tubulin alpha 1 chain; Tubulin alpha 4a; Tubulin alpha 4A chain; Tubulin alpha-1 chain; Tubulin alpha-4A chain; Tubulin H2 alpha; Tubulin H2-alpha; TUBA4A; α -tubulin; α tubulin.

Product Type Internal reference anti

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human,Mouse,Rat(predicted:Sheep,Cow)

Applications WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1 μ g/Test
not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 50kDa

Cellular localization cytoplasmic

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human Tubulin-alpha 1: 375-448/448

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution Human,Mouse,Rat(predicted:Sheep,Cow)1M TBS(pH7.4) with 1% BSA,

Human,Mouse,Rat(predicted:Sheep,Cow)3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

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

PubMed

[PubMed](#)

Tubulin is a major cytoskeleton that has five distinct forms, designated alpha, beta, gamma, delta and epsilon tubulin. The alpha and beta tubulins form a heterodimer that polymerize into the cylindrical microtubule fibers. Both alpha and beta tubulin bind GTP. Only beta tubulin hydrolyzes GTP to GDP. This hydrolysis is a process that is linked to tubulin polymerization and microtubule formation. The alpha tubulin isomer can be modified by addition of a C-terminal tyrosine residue. This modification may influence polymerization rates. The gamma tubulin isomer is localized to centrosomes which compose the heart of the microtubule organizing center from which microtubule fibers emanate.

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.

Subcellular Location:

Cytoplasm, cytoskeleton.

**Product
Detail**

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).

Acetylation of alpha chains at Lys-40 stabilizes microtubules and affects affinity and processivity of microtubule motors. This modification has a role in multiple cellular functions, ranging from cell motility, cell cycle progression or cell differentiation to intracellular trafficking and signaling.

Similarity:

Belongs to the tubulin family.

SWISS:

Q71U36

Gene ID:

7846

Database links:

[Entrez Gene: 7846](#) Human

[Entrez Gene: 22142](#) Mouse

[Entrez Gene: 64158](#) Rat

[Omim: 602529](#) Human

[SwissProt: Q71U36](#) Human

[SwissProt: P68369](#) Mouse

[SwissProt: P68370](#) Rat

[Unigene: 654422](#) Human

[Unigene: 405359](#) Mouse

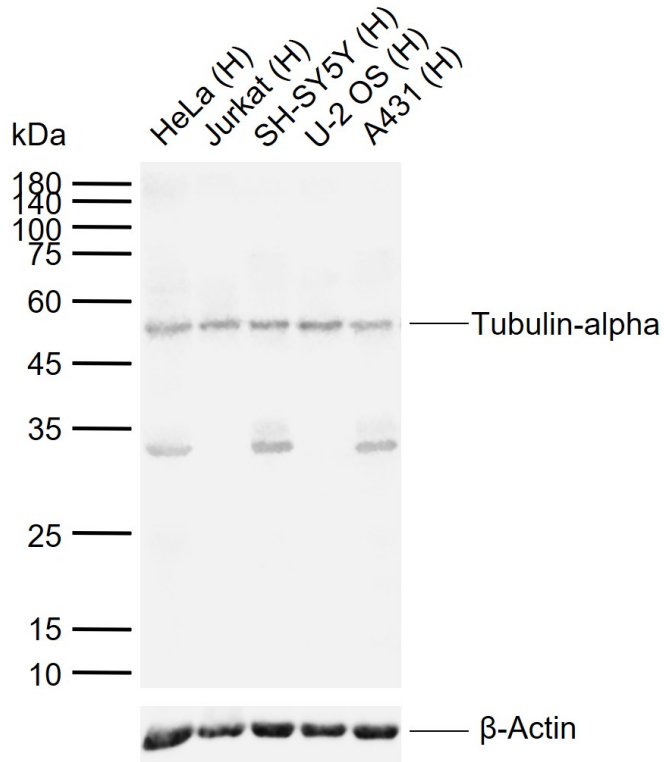
[Unigene: 234326](#) Rat

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)和 β 微管蛋白(β -tubulin)货号: SL0210R, 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。

**Product
Picture**



Sample:

Lane 1: Human HeLa cell lysates

Lane 2: Human Jurkat cell lysates

Lane 3: Human SH-SY5Y cell lysates

Lane 4: Human U-2 OS cell lysates

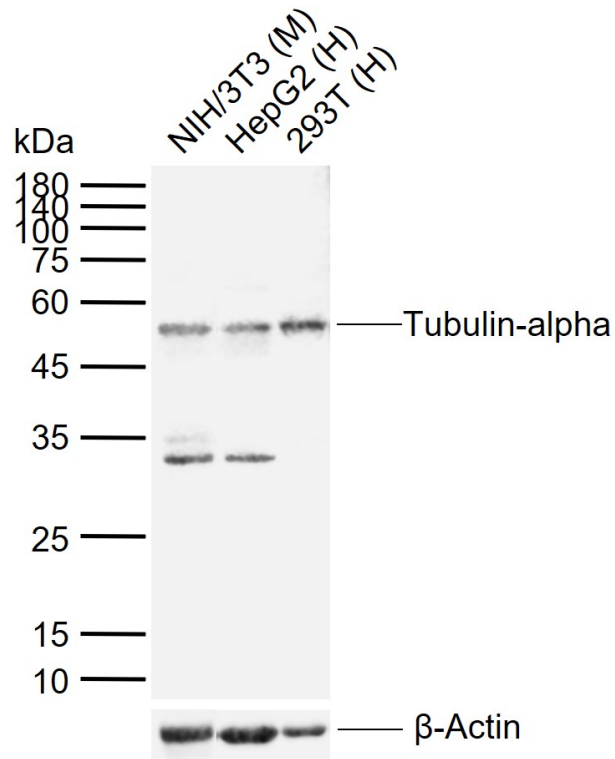
Lane 5: Human A431 cell lysates

Primary: Anti-Tubulin-alpha (Loading Control) (SL0159R) at 1/1000 dilution

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

Predicted band size: 50 kDa

Observed band size: 52 kDa



Sample:

Lane 1: Mouse NIH/3T3 cell lysates

Lane 2: Human HepG2 cell lysates

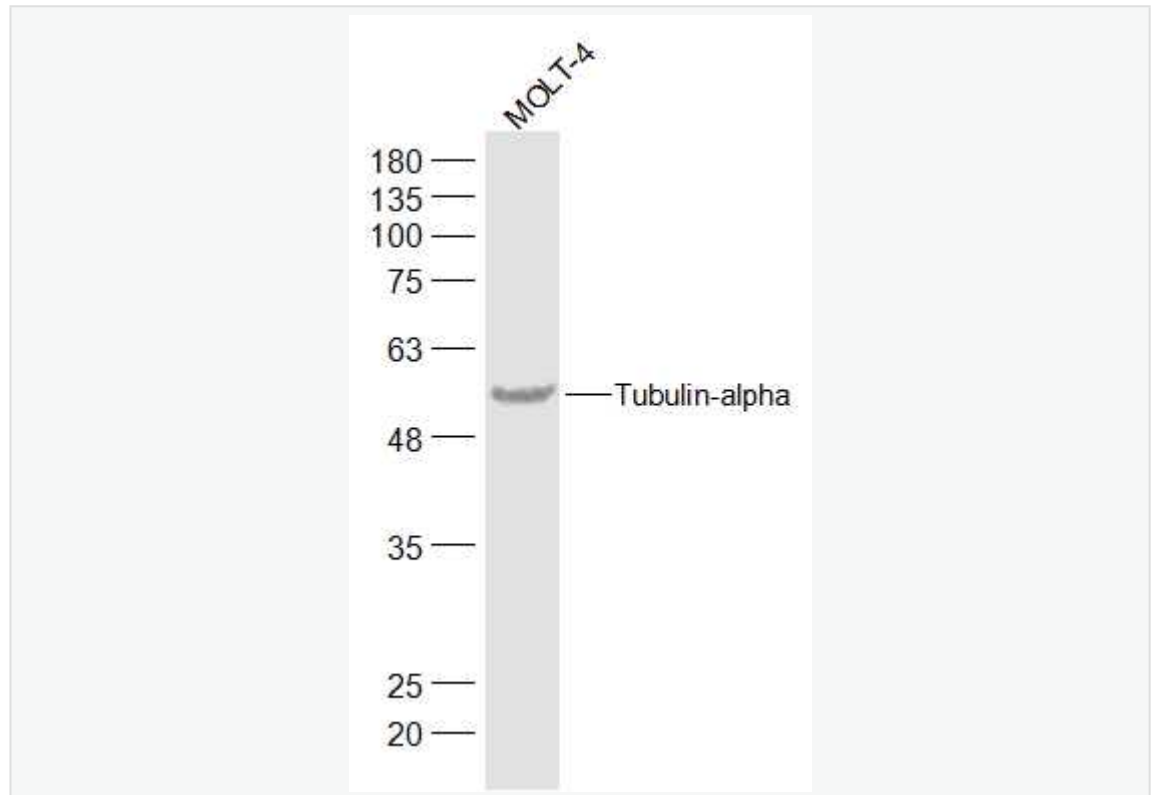
Lane 3: Human 293T cell lysates

Primary: Anti-Tubulin-alpha (Loading Control) (SL0159R) at 1/1000 dilution

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

Predicted band size: 50 kDa

Observed band size: 52 kDa



Sample:

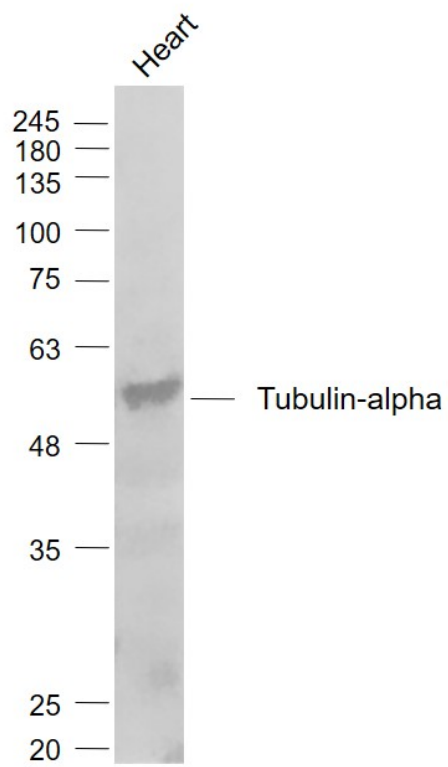
MOLT-4(Human) Cell Lysate at 30 ug

Primary: Anti-Tubulin-alpha (SL0159R) at 1/2000 dilution

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

Predicted band size: 50 kD

Observed band size: 50 kD



Sample:

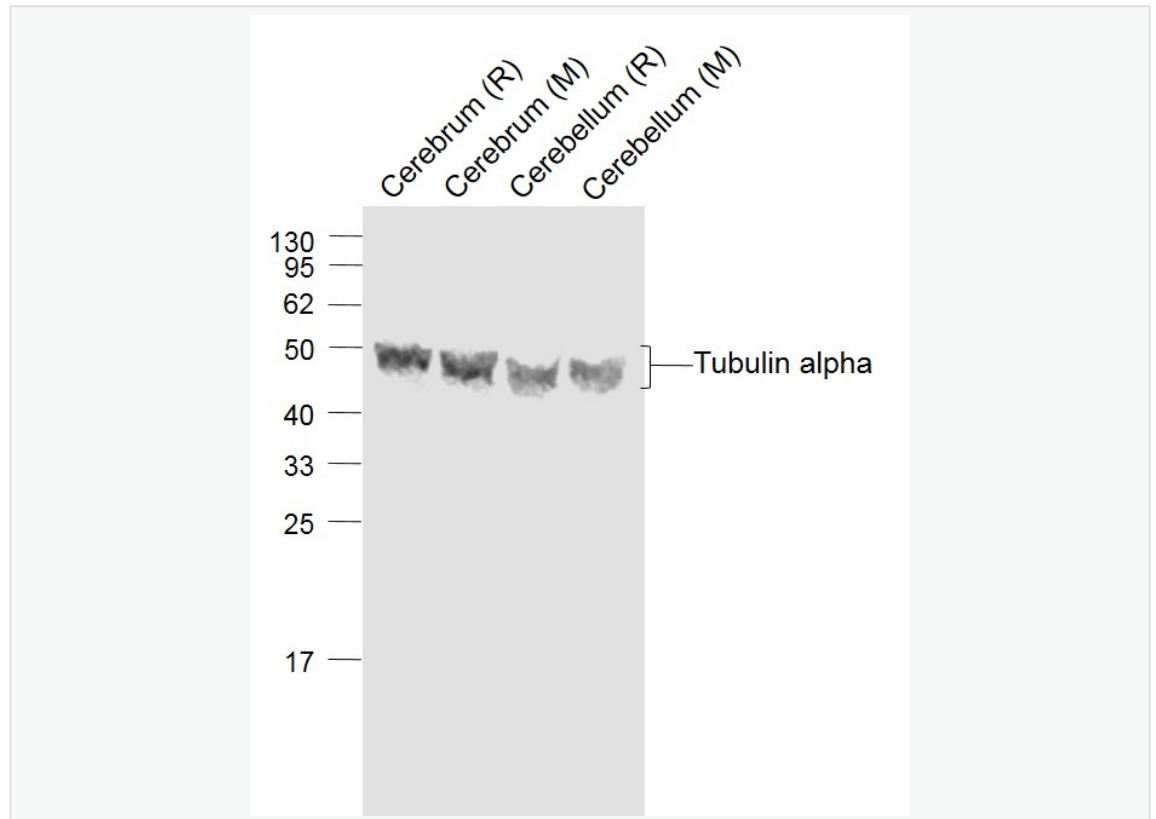
Heart (Mouse) Lysate at 40 ug

Primary: Anti- Tubulin-alpha (SL0159R) at 1/1000 dilution

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

Predicted band size: 50 kD

Observed band size: 52 kD



Sample:

Lane 1: Cerebrum (Rat) Lysate at 40 ug

Lane 2: Cerebrum (Mouse) Lysate at 40 ug

Lane 3: Cerebellum (Rat) Lysate at 40 ug

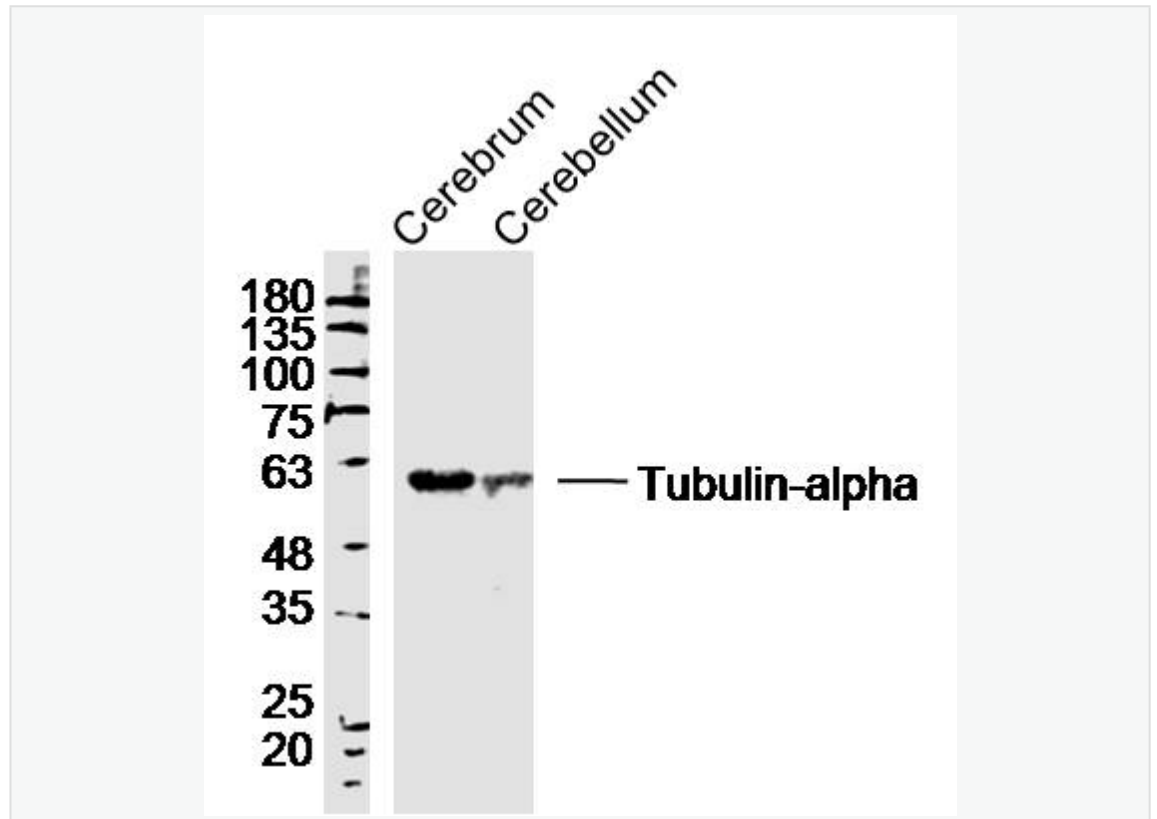
Lane 4: Cerebellum (Mouse) Lysate at 40 ug

Primary: Anti-Tubulin-alpha (SL0159R) at 1/1000 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

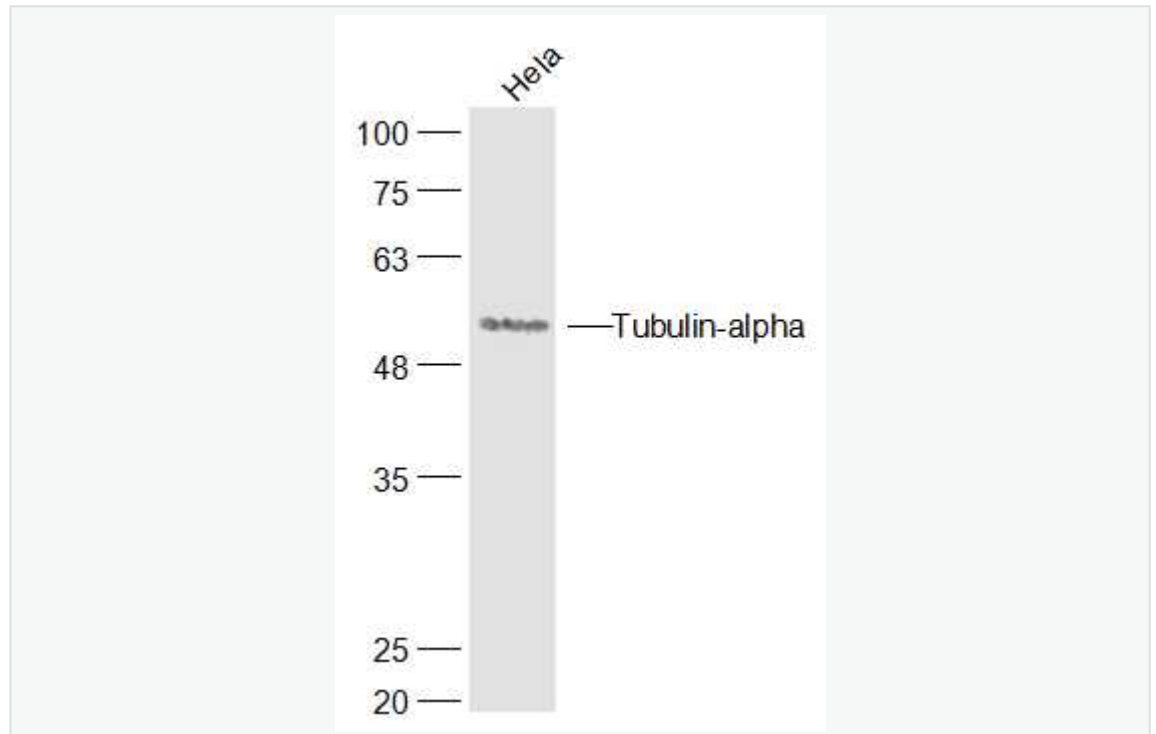
Cerebellum (Mouse) Lysate at 40 ug

Primary: Anti-Tubulin-alpha(SL0159R)at 1/300 dilution

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

Predicted band size: 50kD

Observed band size: 55kD



Sample:

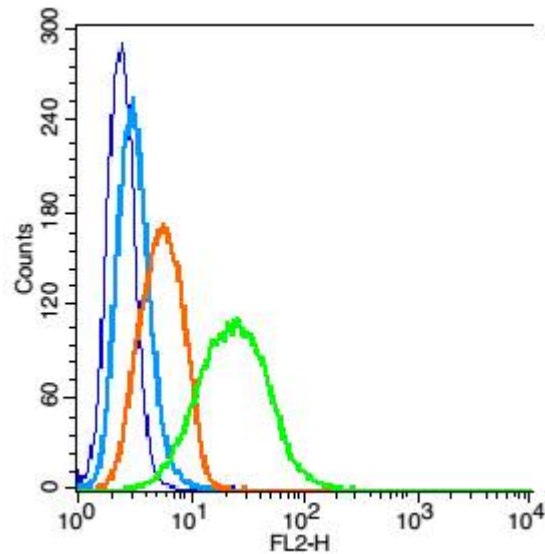
HeLa(Human) Cell Lysate at 30 ug

Primary: Anti-Tubulin-alpha (SL0159R) at 1/300 dilution

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

Predicted band size: 50 kD

Observed band size: 50 kD



Blank control: RSC96 Cells (blue).

Primary Antibody:Rabbit Anti- Tubulin-alpha 1 antibody(SL0159R), Dilution: 1 μ g in 100 μ L 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions);

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min) , then permeabilized with 90% ice-cold methanol for 30 min on ice. Primary antibody (SL0159R,1 μ g /1x10⁶ cells) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions.

Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on ice.



SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

Acquisition of 20,000 events was performed.