

Beta-Tubulin Loading Control Antibody (8X221)

Product Details

Ig Type:	Mouse IgG2b
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	8X221
Purification:	Protein A

Applications

1. Immunochemical staining of human Tubulin in human breast carcinoma with mouse monoclonal antibody (1:20000, formalin-fixed paraffin embedded sections).
 2. Immunochemical staining of human Tubulin in human malignant melanoma with mouse monoclonal antibody (1:20000, formalin-fixed paraffin embedded sections).
 3. Immunochemical staining of human Tubulin in human prostate with mouse monoclonal antibody (1:20000, formalin-fixed paraffin embedded sections).
 4. Immunofluorescence staining of Human Beta-Tubulin in Hela cells. Cells were fixed with 4% PFA, permeabilized with 1% Triton X-100 in PBS, blocked with 10% serum, and incubated with Mouse anti-Human Beta-Tubulin monoclonal antibody at 4°C overnight. Then cells were stained with the Alexa Fluor® 594-conjugated (left panel, captured by laser confocal scanning microscope) and Alexa Fluor®488-conjugated (right panel, captured by fluorescence microscope) Goat Anti-mouse IgG secondary antibody, countstained with DAPI (blue). Positive staining was localized to cytoskeleton.
 5. Tubulin was immunoprecipitated using:
 - Lane A:0.5 mg Jurkat Whole Cell Lysate.
 - Lane B:0.5 mg HepG2 Whole Cell Lysate.
 - 4 µL anti-Tubulin mouse monoclonal antibody and 60 µg of Immunomagnetic beads Protein A/G.
- Verified Activity:
- Primary antibody:
 - Anti-Tubulin mouse monoclonal antibody, at 1:100 dilution.
 - Secondary antibody:
 - Clean-Blot IP Detection Reagent (HRP) at 1:1000 dilution.
 - Developed using the ECL technique.
 - Performed under reducing conditions.
 - Predicted band size: 55 kDa.
 - Observed band size:55 kDa.
6. Anti-Beta-Tubulin mouse monoclonal antibody at 1:10000, 1:20000, 1:50000, 1:100000 dilution.
 - Lane A: HepG2 Whole Cell Lysate.
 - Lane B: Hela Whole Cell Lysate.
 - Lane C: Raw246.7 Whole Cell lysate.
 - Lysates/proteins at 30 µg per lane.
 - Secondary
 - Rabbit Anti-Mouse IgG F(ab)2/HRP at 1/10000 dilution.
 - Developed using the ECL technique.
 - Performed under reducing conditions.

- Predicted band size:50 kDa.
 - Observed band size:54 kDa.
7. Anti-Beta-Tubulin mouse monoclonal antibody at 1:2000 dilution.
- Lane A: Rabbit heart tissue Lysate.
 - Lane B: Rabbit liver tissue Lysate.
 - Lane C: Rabbit spleen tissue Lysate.
 - Lane D: Rabbit lung tissue Lysate.
 - Lane E: Rabbit kidney tissue Lysate.
 - Lane F: Rabbit brain tissue Lysate.
 - Lane G: Rabbit muscle tissue Lysate.
 - Lane H: Rabbit stomach tissue Lysate.
 - Lane I: Rabbit small intestine tissue lysate.
 - Lysates/proteins at 30 µg per lane.
 - Secondary
 - Goat Anti-Mouse IgG H&L (Dylight800) at 1/15000 dilution.
 - Developed using the Odyssey technique.
 - Performed under reducing conditions.
 - Predicted band size:50 kDa.
 - Observed band size:54 kDa.
8. Anti-Beta-Tubulin mouse monoclonal antibody at 1:5000 dilution.
- Lane A: Rat heart tissue Lysate.
 - Lane B: Rat liver tissue Lysate.
 - Lane C: Rat spleen tissue Lysate.
 - Lane D: Rat lung tissue Lysate.
 - Lane E: Rat kidney tissue Lysate.
 - Lane F: Rat muscle tissue Lysate.
 - Lane G: Rat stomach tissue Lysate.
 - Lane H: Rat small intestine tissue lysate.
 - Lysates/proteins at 30 µg per lane.
 - Secondary
 - Goat Anti-Mouse IgG H&L (Dylight800) at 1/15000 dilution.
 - Developed using the Odyssey technique.
 - Performed under reducing conditions.
 - Predicted band size:50 kDa.
 - Observed band size:54 kDa.
9. Anti-Beta-Tubulin mouse monoclonal antibody at 1:5000 dilution.
- Lane A: Mouse heart tissue Lysate.
 - Lane B: Mouse liver tissue Lysate.
 - Lane C: Mouse spleen tissue Lysate.
 - Lane D: Mouse lung tissue Lysate.
 - Lane E: Mouse kidney tissue Lysate.
 - Lane F: Mouse brain tissue Lysate.
 - Lane G: Mouse muscle tissue Lysate.
 - Lane H: Mouse stomach tissue Lysate.
 - Lane I: Mouse pancreas tissue lysate.
 - Lysates/proteins at 30 µg per lane.
 - Secondary
 - Goat Anti-Mouse IgG H&L (Dylight800) at 1/15000 dilution.
 - Developed using the Odyssey technique.
 - Performed under reducing conditions.
 - Predicted band size:50 kDa.
 - Observed band size:54 kDa.
10. Anti-Beta-Tubulin mouse monoclonal antibody at 1:2000 dilution.

- Lane A: Jurkat Whole Cell Lysate.
 - Lane B: 293T Whole Cell Lysate.
 - Lane C: K562 Whole Cell Lysate.
 - Lane D: HeLa Whole Cell Lysate.
 - Lane E: RAW264.7 Whole Cell lysate.
 - Lysates/proteins at 30 µg per lane.
 - Secondary
 - Goat Anti-Mouse IgG H&L (Dylight800) at 1/15000 dilution.
 - Developed using the Odyssey technique.
 - Performed under reducing conditions.
 - Predicted band size:50 kDa.
 - Observed band size:54 kDa.
11. Anti-Beta-Tubulin mouse monoclonal antibody at 1:2000 dilution.
- Lane A: HepG2 Whole Cell Lysate.
 - Lane B: Daudi Whole Cell Lysate.
 - Lane C: MOLT-4 Whole Cell Lysate.
 - Lane D: A549 Whole Cell Lysate.
 - Lane E: 293T Whole Cell Lysate.
 - Lane F: HeLaS3 Whole Cell lysate.
 - Lysates/proteins at 30 µg per lane.
 - Secondary
 - Goat Anti-Mouse IgG H&L (Dylight800) at 1/15000 dilution.
 - Developed using the Odyssey technique.
 - Performed under reducing conditions.
 - Predicted band size:50 kDa.
 - Observed band size:54 kDa

Application: ICC/IF,IHC-P,IP,WB

Recommended WB: 1:1000-1:100000; IHC-P: 1/2000-1/20000; ICC-IF: 1:50-1:200; IP: 5-10 µL/mg of lysate

Properties

Stability & Storage: Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.

Shipping: Shipping with blue ice.

Antigen Details

Immunogen: A synthetic peptide: N-terminus of the human beta-tubulin

Antigen Species: Human

Research Background

Beta-Tubulin is a subunit of tubulin. Tubulin is one of several members of a small family of globular proteins. It is the major constituent of microtubules. There are two most common members of the tubulin family: alpha-tubulin and beta-tubulin, and together their dimers form microtubules. The dimers of alpha- and beta-tubulin bind to GTP and assemble onto the (+) ends of microtubules while in the GTP-bound state. After the dimer is incorporated into the microtubule, the molecule of GTP bound to the beta -tubulin subunit eventually hydrolyzes into GDP through inter-dimer contacts along the microtubule protofilament. Beta-tubulin faces the plus end of the microtubule while alpha-tubulin faces the minus end. Dimers bound to GTP tend to assemble into microtubules, while dimers bound to GDP tend to fall apart. Loading controls are usually proteins that exhibit high-level, constitutive expression in the cell type or sample you are examining. This ensures constant expression levels. Thus "housekeeping genes" are frequently chosen for use as loading controls. It is also important that the protein chosen as a loading control has a different molecular weight than the protein of interest so that the bands are distinct and expression levels

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quantifiable. Popular loading control detection antibodies include anti- β -Actin monoclonal or polyclonal antibodies, anti-COX-4, anti-GAPDH, anti-Tubulin and anti-VDAC/Porin antibodies.

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