Data Sheet (Cat.No.TMAY-00013)

Beta-Tubulin Loading Control Antibody (4Z721)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	4Z721
Purification:	Protein A

Applications

Verified Activity:

1. Anti-Beta-Tubulin rabbit monoclonal antibody at 1:30000 dilution.
-Lane A: Jurkat Whole Cell Lysate.
-Lane B: HeLa Whole Cell Lysate.
-Lane C: HepG2 Whole Cell Lysate.
-Lane D: A549 Whole Cell Lysate.
-Lane E: Mouse brain tissue Lysate.
-Lane F: Rat brain tissue lysate.
-Lysates/proteins at 30 µg per lane.
-Secondary
-Goat Anti-Rabbit IgG (H+L)/HRP at 1/10000 dilution.
-Developed using the ECL technique.
-Performed under reducing conditions.
-Predicted band size:50 kDa.
-Observed band size:54 kDa.
2. Immunochemical staining of human Beta-Tubulin in human breast carcinoma with Chimera Mab at 1:10000 dilution, formalin-fixed paraffin embedded sections.
3. Immunochemical staining of human Beta-Tubulin in human malignant melanoma with Chimera Mab at 1:10000 dilution, formalin-fixed paraffin embedded sections.
4. Immunochemical staining of human Beta-Tubulin in human lung cancer with Chimera Mab at 1:10000 dilution, formalin-fixed paraffin embedded sections.
5. Immunofluorescence staining of Beta-Tubulin in HeLa cells. Cells were fixed with 4% PFA, permeabilzed with 0.1% Triton X-100 in PBS,blocked with 10% serum, and incubated with mouse anti-Human Beta-Tubulin Chimera Mab (dilution ratio 1:60) at 4°C overnight. Then cells were stained with the Alexa Fluor®488-conjugated Goat Anti-rabbit IgG secondary antibody (green). Positive staining was localized to Cytoplasm.
6. Tubulin was immunoprecipitated using:
-Lane A:0.5 mg HepG2 Whole Cell Lysate.
-Lane B:0.5 mg Hela Whole Cell Lysate.
-Lane C:0.5 mg Raw246.7 Whole Cell Lysate.
-Lane D:0.5 mg Jurkat Whole Cell Lysate.
-4 µL anti-Tubulin rabbit monoclonal antibody and 60 µg of Immunomagnetic beads Protein A/G.
-Primary antibody:
-Anti-Tubulin rabbit 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: 50 kDa.
-Observed band size:54 kDa

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

Recommended: WB: 1:10000-1:100000; IHC-P: 1:5000-1:20000; ICC-IF: 1:20-1:100; IP: 1-5 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 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.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481