Anti-beta Tubulin Antibody [A1-A4-R]

HA601187

Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human, Mouse, Rat, Monkey
Applications:	WB, IF-Cell, FC, IHC-P
Molecular Wt:	Predicted band size: 50 kDa
Clone number:	A1-A4-R

Description: Tubulin is the major constituent of microtubules, a cylinder consisting of laterally associated linear protofilaments composed of alpha- and beta-tubulin heterodimers. Microtubules grow by the addition of GTP-tubulin dimers to the microtubule end, where a stabilizing cap forms. Below the cap, tubulin dimers are in GDP-bound state, owing to GTPase activity of alpha-tubulin.

Immunogen: Synthetic peptide within Human Beta tubulin aa 151-200 / 444.

Positive control: HepG2 cell lysate, A549 cell lysate, NIH/3T3 cell lysate, L-929 cell lysate, PC-12 cell lysate, C6 cell lysate, Vero cell lysate, COS-1 cell lysate, mouse spleen tissue lysate, mouse stomach tissue lysate, rat kidney tissue lysate, HeLa, NIH/3T3, human colon cancer tissue.

Subcellular location: Cytoplasm, Cytoskeleton, Microtubule.

Database links: SwissProt: P07437 Human | P99024 Mouse | P69897 Rat

Recommended Dilutions:

WB	1:10,000
IF-Cell	1:100
FC	1:1,000
IHC-P	1:10,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Protein A affinity purified.

Images

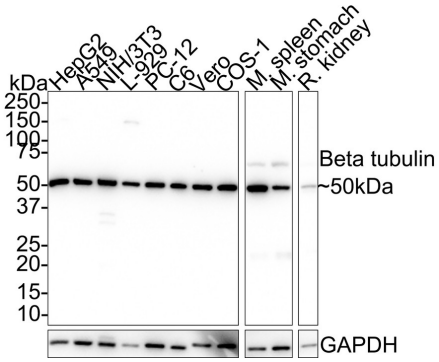

Fig1: Western blot analysis of beta Tubulin on different lysates with Mouse anti-beta Tubulin antibody (HA601187) at 1/10,000 dilution.

Lane 1: HepG2 cell lysate (10 µg/Lane)
Lane 2: A549 cell lysate (10 µg/Lane)
Lane 3: NIH/3T3 cell lysate (10 µg/Lane)
Lane 4: L-929 cell lysate (10 µg/Lane)
Lane 5: PC-12 cell lysate (10 µg/Lane)
Lane 6: C6 cell lysate (10 µg/Lane)
Lane 7: Vero cell lysate (10 µg/Lane)
Lane 8: COS-1 cell lysate (10 µg/Lane)
Lane 9: Mouse spleen tissue lysate (20 µg/Lane)
Lane 10: Mouse stomach tissue lysate (20 µg/Lane)
Lane 11: Rat kidney tissue lysate (20 µg/Lane)

Predicted band size: 50 kDa
Observed band size: 50 kDa

Exposure time: 24 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA601187) at 1/10,000 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1/50,000 dilution was used for 1 hour at room temperature.

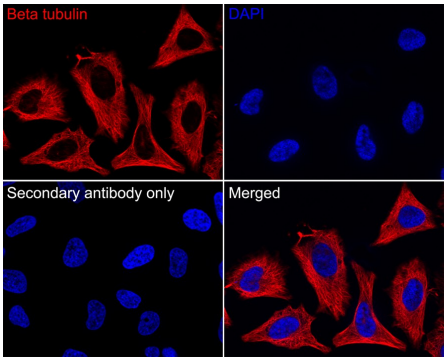

Fig2: Immunocytochemistry analysis of HeLa cells labeling beta Tubulin with Mouse anti-beta Tubulin antibody (HA601187) at 1/100 dilution.

Cells were fixed in 4% paraformaldehyde for 20 minutes at room temperature, permeabilized with 0.1% Triton X-100 in PBS for 5 minutes at room temperature, then blocked with 1% BSA in 10% negative goat serum for 1 hour at room temperature. Cells were then incubated with Mouse anti-beta Tubulin antibody (HA601187) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution. PBS instead of the primary antibody was used as the secondary antibody only control. Nuclear DNA was labelled in blue with DAPI.

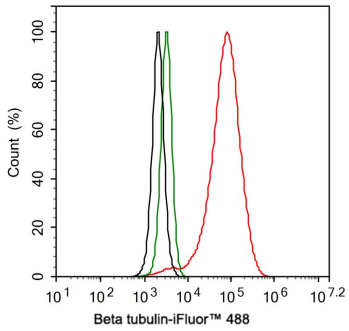

Fig3: Flow cytometric analysis of HeLa cells labeling beta Tubulin.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA601187, 1μg/mL) (red) compared with Mouse IgG1 Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Mouse IgG Secondary antibody (HA1125) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

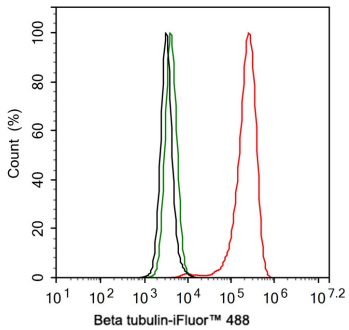

Fig4: Flow cytometric analysis of NIH/3T3 cells labeling beta Tubulin.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA601187, 1μg/mL) (red) compared with Mouse IgG1 Isotype Control (green). After incubation of the primary antibody at +4℃ for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Mouse IgG Secondary antibody (HA1125) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

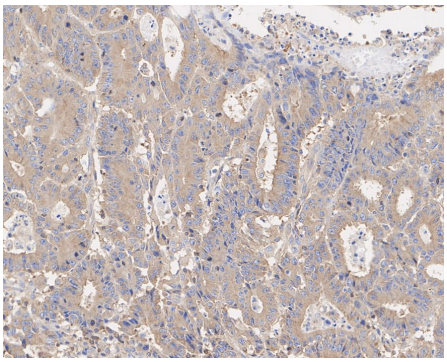

Fig5: Immunohistochemical analysis of paraffin-embedded human colon cancer tissue with Mouse anti-beta Tubulin antibody (HA601187) at 1/10,000 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (HA601187) at 1/10,000 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Background References

1. "Tumoral and tissue-specific expression of the major human beta-tubulin isotypes."Leandro-Garcia L.J., Leskela S., Landa I., Montero-Conde C., Lopez-Jimenez E., Leton R., .Cytoskeleton 67:214-223(2010)
2. "Five mouse tubulin isotypes and their regulated expression during development."Lewis S.A., Lee M.G.-S., Cowan N.J.J. Cell Biol. 101:852-861(1985)