Anti-beta Tubulin Antibody [A1-A4]

M1305-2

Product Type:	Mouse monoclonal IgG3, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	Predicted band size: 50 kDa
Clone number:	A1-A4

Description: Tubulins is one of several members of a small family of globular proteins. The most common members of the tubulins family are α-tubulins and β-tubulins. The beta-tubulins (relative molecular weight about 50 kDa) is counterpart of alpha-tubulin in tubulins heterodimer, it is coded by multiple tubulins genes and it is also posttranslationally modified. Heterogeneity of subunit is concentrated in C-terminal structural domain. Beta-Tubulins may have bound GTP or GDP. Under certain conditions β-tubulin can hydrolyze its bound GTP to GDP plus Pi, release the Pi, and exchange the GDP for GTP.

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

Positive control: Hela cell lysates, NIH/3T3 cell lysates, PC-12 cell lysates, SKOV-3 cells, HeLa, 293, human tonsil tissue, human spleen tissue, human colon tissue, rat brain tissue, NIH/3T3.

Subcellular location: Cytoplasm, Cytoskeleton, Microtubule.

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

Recommended Dilutions:

WB	1:5,000-1:20,000
IF-Cell	1:100-1:500
IHC-P	1:50-1:200
FC	1:100-1:1,000

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

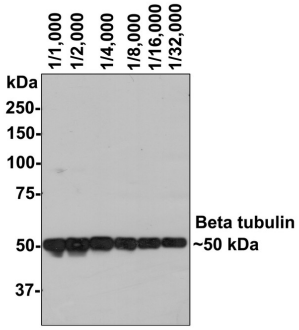

Fig1: Western blot analysis of beta Tubulin on Hela cell lysates with Mouse anti-beta Tubulin antibody (M1305-2).

Hela cell lysates at 10 µg/Lane.

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

8% 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 (M1305-2) at serial dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:100,000 dilution was used for 1 hour at room temperature.

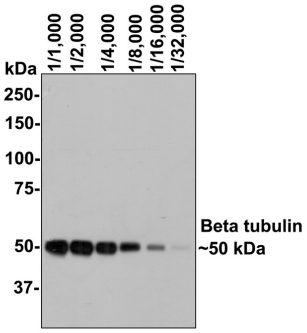

Fig2: Western blot analysis of beta Tubulin on NIH/3T3 cell lysates with Mouse anti-beta Tubulin antibody (M1305-2).

NIH/3T3 cell lysates at 10 µg/Lane.

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

8% 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 (M1305-2) at serial dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:100,000 dilution was used for 1 hour at room temperature.

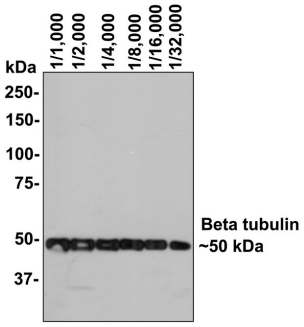

Fig3: Western blot analysis of beta Tubulin on PC-12 cell lysates with Mouse anti-beta Tubulin antibody (M1305-2).

PC-12 cell lysates at 10 µg/Lane.

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

8% 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 (M1305-2) at serial dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Mouse IgG - HRP Secondary Antibody (HA1006) at 1:100,000 dilution was used for 1 hour at room temperature.

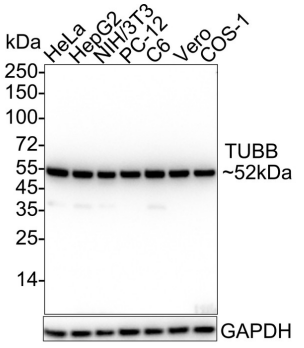

Fig4: Western blot analysis of beta Tubulin on different lysates with Rabbit anti-beta Tubulin antibody (M1305-2) at 1/1,000 dilution.

Lane 1: HeLa cell lysate
Lane 1: HepG2 cell lysate
Lane 1: NIH/3T3 cell lysate
Lane 1: PC-12 cell lysate
Lane 1: C6 cell lysate
Lane 1: Vero cell lysate
Lane 1: COS-1 cell lysate

Lysates/proteins at 20 µg/Lane.

Predicted band size: 52 kDa
Observed band size: 52 kDa

Exposure time: 2 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 (M1305-2) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

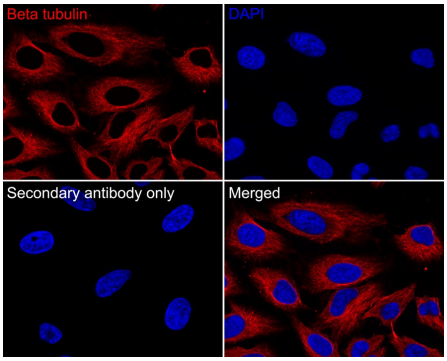

Fig5: Immunocytochemistry analysis of HeLa cells labeling beta Tubulin with Mouse anti-beta Tubulin antibody (M1305-2) at 1/100 dilution.

Cells were fixed in 100% precooled methanol 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 (M1305-2) 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.

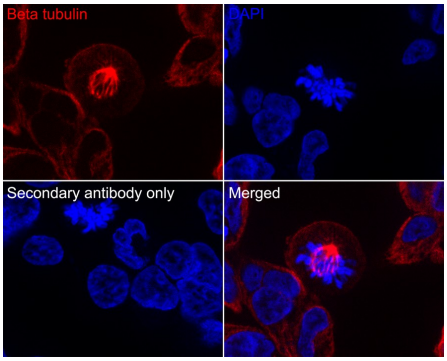

Fig6: Immunocytochemistry analysis of 293 cells labeling beta Tubulin with Mouse anti-beta Tubulin antibody (M1305-2) at 1/100 dilution.

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 (M1305-2) 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.

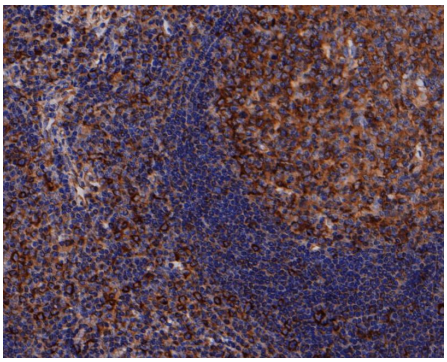

Fig7: Immunohistochemical analysis of paraffin-embedded human tonsil tissue using anti-beta tubulin antibody. Counter stained with hematoxylin.

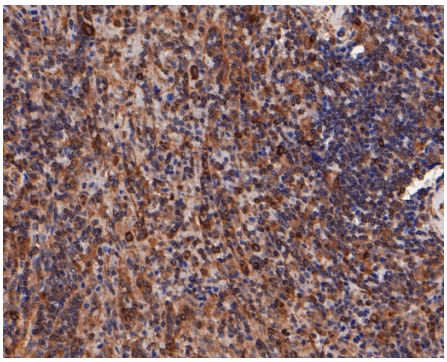

Fig8: Immunohistochemical analysis of paraffin-embedded human spleen tissue using anti-beta tubulin antibody. Counter stained with hematoxylin.

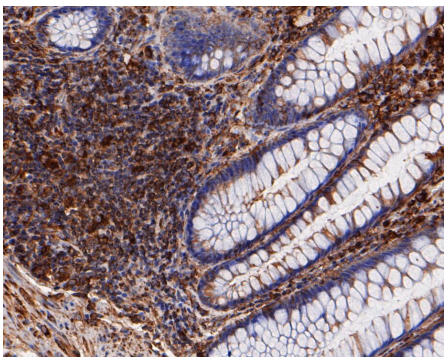

Fig9: Immunohistochemical analysis of paraffin-embedded human colon tissue using anti-beta tubulin antibody. Counter stained with hematoxylin.

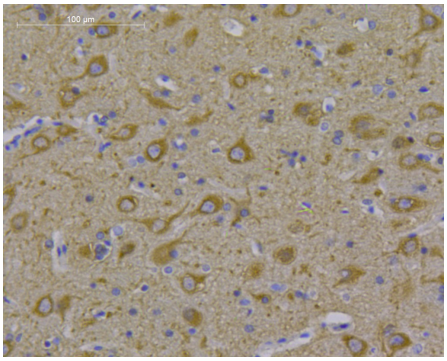

Fig10: Immunohistochemical analysis of paraffin-embedded rat brain tissue using anti-beta tubulin antibody. Counter stained with hematoxylin.

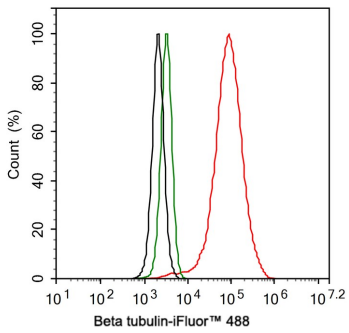

Fig11: Flow cytometric analysis of HeLa cells labeling beta Tubulin.

Cells were fixed and permeabilized. Then stained with the primary antibody (M1305-2, 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).

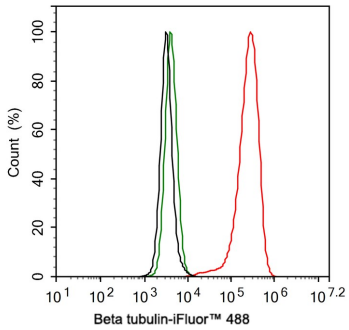

Fig12: Flow cytometric analysis of NIH/3T3 cells labeling beta Tubulin.

Cells were fixed and permeabilized. Then stained with the primary antibody (M1305-2, 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).

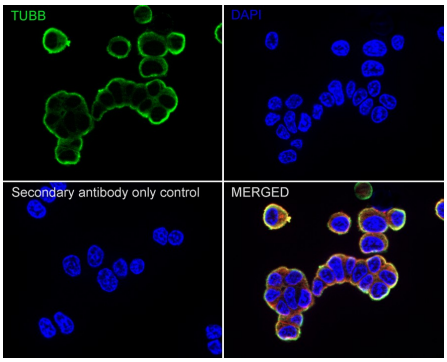

Fig13: Immunocytochemistry analysis of PC-12 cells labeling beta Tubulin with Rabbit anti-beta Tubulin antibody (M1305-2) at 1/100 dilution.

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 Rabbit anti-beta Tubulin antibody (M1305-2) at 1/100 dilution in 1% BSA in PBST overnight at 4 ℃. Goat Anti-Rabbit IgG H&L (iFluor™ 488, HA1121) 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.

Beta tubulin (M1305-2, red) was stained at 1/100 dilution overnight at +4℃. Goat Anti-Mouse IgG H&L (iFluor™ 594, HA1126) was used as the secondary antibody at 1/1,000 dilution.

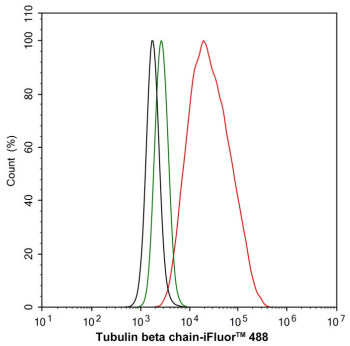

Fig14: Flow cytometric analysis of HeLa cells labeling beta Tubulin.

Cells were fixed and permeabilized. Then stained with the primary antibody (M1305-2, 1μg/mL) (red) compared with Rabbit IgG 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-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

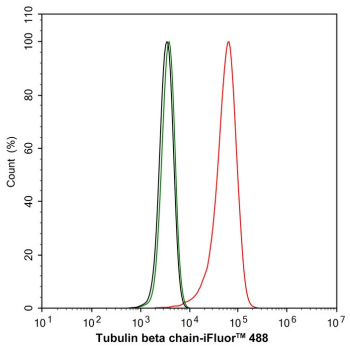

Fig15: Flow cytometric analysis of NIH/3T3 cells labeling beta Tubulin.

Cells were fixed and permeabilized. Then stained with the primary antibody (M1305-2, 1μg/mL) (red) compared with Rabbit IgG 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-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

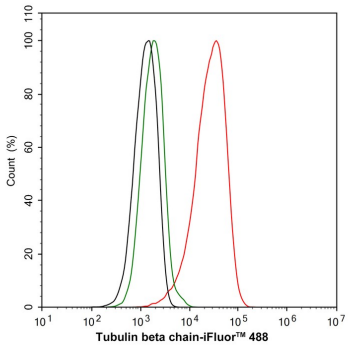

Fig16: Flow cytometric analysis of PC-12 HeLa cells labeling beta Tubulin.

Cells were fixed and permeabilized. Then stained with the primary antibody (M1305-2, 1μg/mL) (red) compared with Rabbit IgG 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-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4℃. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

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)