

Anti-Beta III Tubulin Antibody

R1401-3



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	50 kDa

Description:	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. TUBB3 plays a critical role in proper axon guidance and maintenance. It has been reported that β 3-tubulin is expressed in a wide variety of tumors. Overexpression of this isotype in clinical samples correlates with tumor aggressiveness, resistance to chemotherapeutic drugs, and poor patient survival. The β 3 isotype increases tumor aggressiveness by two distinct mechanisms. Incorporation of this isotype makes microtubule networks hypostable, allowing them to resist the cytotoxic effects of microtubule stabilizing drugs like taxanes or epothilones. Mechanistically, it was found that overexpression of β 3-tubulin increases the rate of microtubule detachment from microtubule organizing centers, an activity that is suppressed by drugs such as paclitaxel.
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Immunogen:	Synthetic peptide corresponding to Human Beta III Tubulin aa 401-450 / 450.
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Positive control:	Hela, human brain, mouse brain, rat brain
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Subcellular location:	Cytoplasm , cytoskeleton.
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Database links:	SwissProt: Q13509 Human
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Recommended Dilutions:

WB	1:2000-1:5000
IF-Cell	1:100-1:200

Storage Buffer:	1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
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Storage Instruction:	Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.
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Purity:	Immunogen affinity purified.
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Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

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Applications:WB=Western blot IHC-P=Immunohistochemistry (paraffin) IF-Cell=Immunofluorescence (Cell) IF-Tissue=Immunofluorescence (Tissue) FC=Flow cytometry IP=Immunoprecipitation

Images

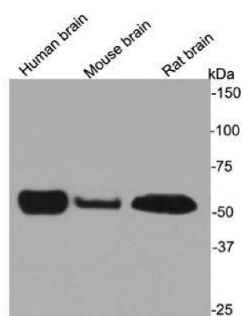


Fig1: Western blot analysis on different lysates using anti-beta III tubulin rabbit polyclonal antibodies.

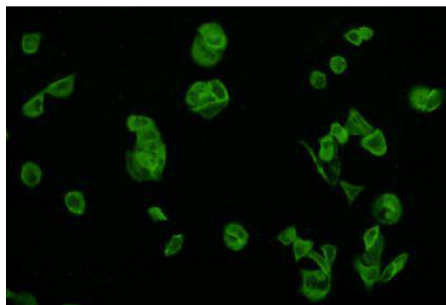


Fig2: ICC staining beta III tubulin in HeLa cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. "Class III beta-tubulin isotype: a key cytoskeletal protein at the crossroads of developmental neurobiology and tumor neuropathology." Katsetos C.D., Legido A., Perentes E., Mork S.J. J. Child Neurol. 18:851-866(2003)
2. "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., Cascon A., Robledo M., Rodriguez-Antona C. Cytoskeleton 67:214-223(2010)
3. "Mutations in the neuronal ss-tubulin subunit TUBB3 result in malformation of cortical development and neuronal migration defects." Poirier K., Saillour Y., Bahi-Buisson N., Jaglin X.H., Fallet-Bianco C., Nabbout R., Castelnau-Ptakhine L., Hum. Mol. Genet. 19:4462-4473(2010)

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