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Anti-beta III Tubulin TUBB3 Rabbit Monoclonal Antibody

Catalog # ABO14219

Specification

Anti-beta III Tubulin TUBB3 Rabbit Monoclonal Antibody - Product Information

Application	**WB, IHC, IF, ICC, IP**
Primary Accession	Q13509
Host	**Rabbit**
Isotype	**Rabbit IgG**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Liquid**

Description
Anti-beta III Tubulin TUBB3 Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human, Mouse, Rat.

Anti-beta III Tubulin TUBB3 Rabbit Monoclonal Antibody - Additional Information

Gene ID 10381

Other Names
Tubulin beta-3 chain, Tubulin beta-4 chain, Tubulin beta-III, TUBB3, TUBB4

Calculated MW
50433 MW KDa

Application Details
WB 1:2000-1:20000
IHC 1:50-1:200
ICC/IF 1:50-1:200
IP 1:50

Subcellular Localization
Cytoplasm, cytoskeleton.

Tissue Specificity
Expression is primarily restricted to central and peripheral nervous system. Greatly increased expression in most cancerous tissues..

Contents
Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

Immunogen
A synthesized peptide derived from human beta III Tubulin

Purification
Affinity-chromatography

Storage	**Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated**

freeze-thaw cycles.

Anti-beta III Tubulin TUBB3 Rabbit Monoclonal Antibody - Protein Information

Name TUBB3

Synonyms TUBB4

Function
Tubulin is the major constituent of microtubules, a cylinder consisting of laterally associated linear protofilaments composed of alpha- and beta-tubulin heterodimers (PubMed:34996871). Microtubules grow by the addition of GTP-tubulin dimers to the microtubule end, where a stabilizing cap forms (PubMed:34996871). Below the cap, tubulin dimers are in GDP-bound state, owing to GTPase activity of alpha- tubulin (PubMed:34996871). TUBB3 plays a critical role in proper axon guidance and maintenance (PubMed:20074521). Binding of NTN1/Netrin-1 to its receptor UNC5C might cause dissociation of UNC5C from polymerized TUBB3 in microtubules and thereby lead to increased microtubule dynamics and axon repulsion (PubMed:28483977). Plays a role in dorsal root ganglion axon projection towards the spinal cord (PubMed:28483977).

Cellular Location
Cytoplasm, cytoskeleton. Cell projection, growth cone {ECO:0000250|UniProtKB:Q9ERD7}. Cell projection, lamellipodium {ECO:0000250|UniProtKB:Q9ERD7}. Cell projection, filopodium {ECO:0000250|UniProtKB:Q9ERD7}

Tissue Location
Expression is primarily restricted to central and peripheral nervous system. Greatly increased expression in most cancerous tissues.

Anti-beta III Tubulin TUBB3 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-beta III Tubulin TUBB3 Rabbit Monoclonal Antibody - Images

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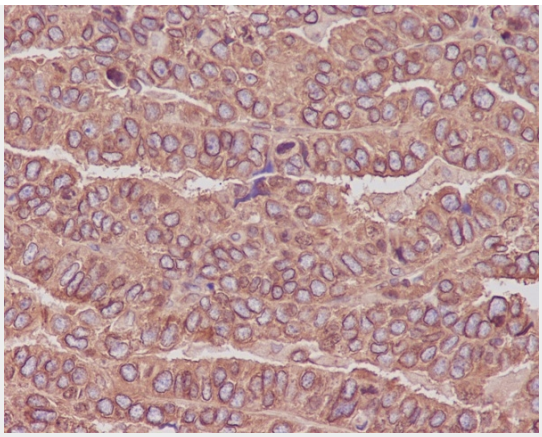
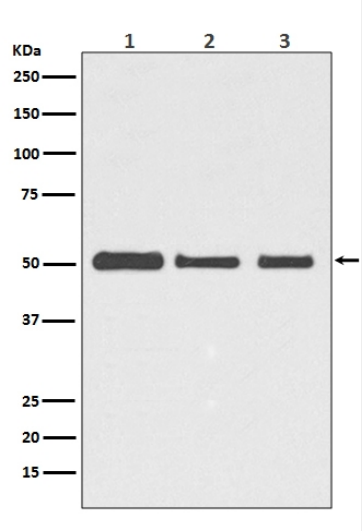


Immunohistochemical analysis of paraffin-embedded human ovarian cancer, using beta III Tubulin Antibody(M01857)
TUBB3 was detected in paraffin-embedded tissue section. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-TUBB3 Antibody (M01857)overnight at 4 Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Western blot analysis of beta III Tubulin expression in HeLa cell lysate (M01857).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TUBB3 monoclonal antibody (Catalog # M01857) overnight at 4 then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for TUBB3

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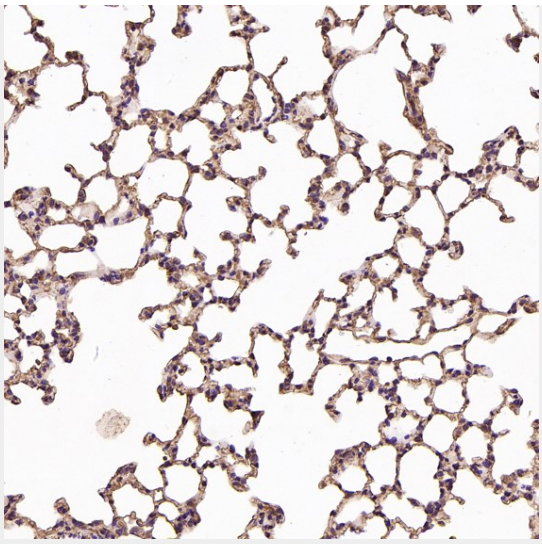

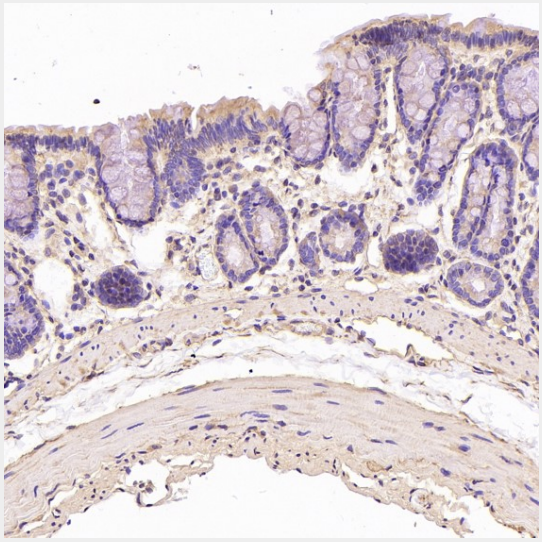

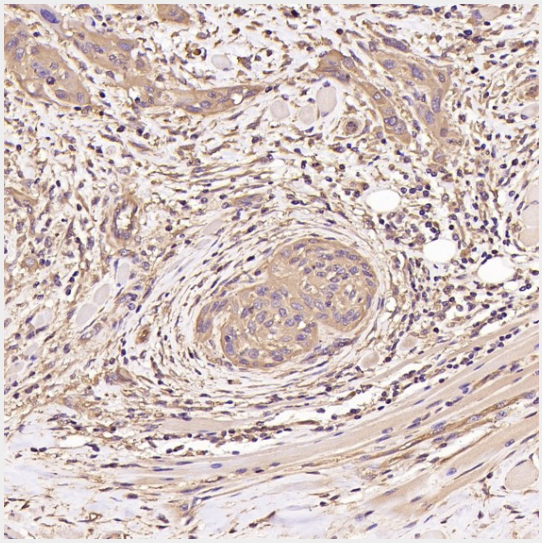

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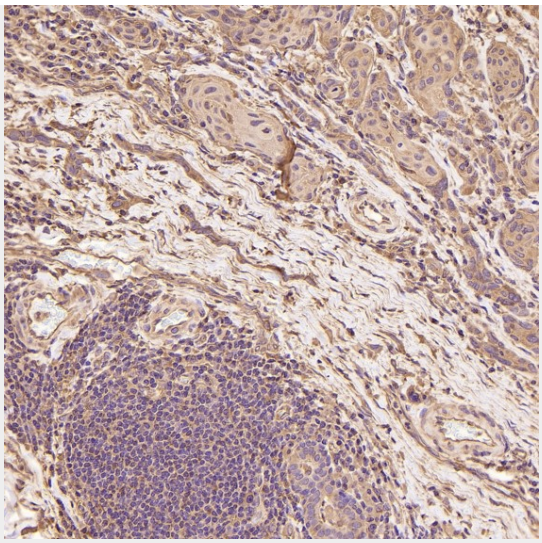
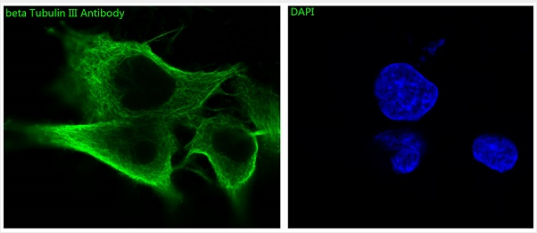
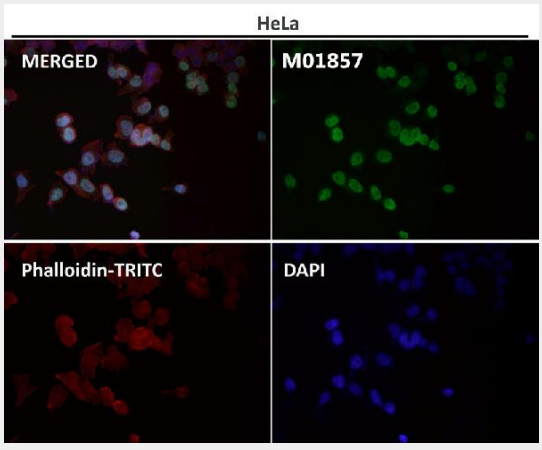




AB0042Immunofluorescent analysis of PC12 cells, using beta Tubulin Antibody.



Immunofluorescent analysis using the Antibody at 1:50 dilution.