10320 Camino Santa Fe, Suite G
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Anti-βIII-Tubulin Antibody
Catalog # AN2005

Specification

Anti-βIII-Tubulin Antibody - Product Information

Application	**WB**
Primary Accession	Q13509
Reactivity	**Bovine**
Host	**Rabbit**
Clonality	**Rabbit Polyclonal**
Isotype	**IgG**
Calculated MW	**50433**

Anti-βIII-Tubulin Antibody - Additional Information

Gene ID	**10381**

Other Names
TUBB3

Dilution
WB~~1:1000

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Anti-βIII-Tubulin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Anti-βIII-Tubulin 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-βIII-Tubulin Antibody - Images

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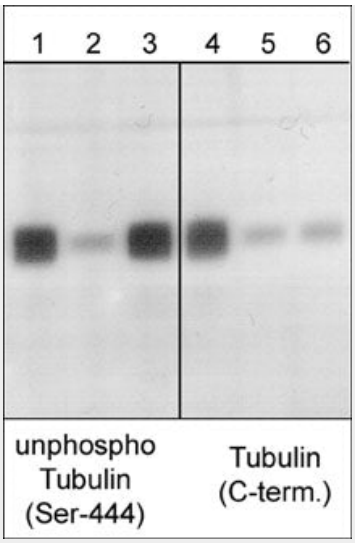
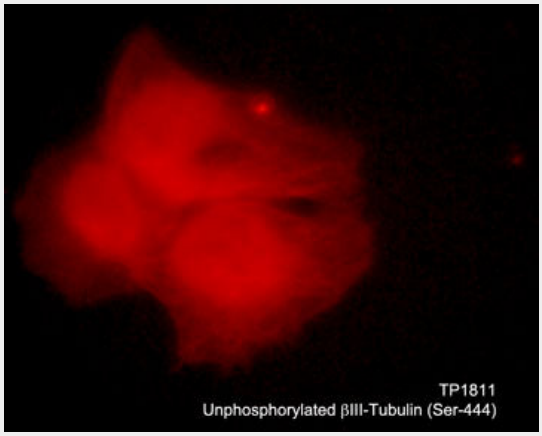


Western blot analysis of mouse brain. The blot was probed with anti-unphosphorylated βIII-Tubulin (Ser-444) (lanes 1-3) and anti-βIII-Tubulin (C-terminus) (lanes 4-6) polyclonal antibodies. Both antibodies were used in the presence of unphosphorylated βIII-Tublin (Ser-444) peptide (lanes 2 & 5; TX1815) and phospho-βIII-Tublin (Ser-444) peptide (lanes 3 & 6; TX1695).



Immunocytochemical labeling of β-tubulin in aldehyde fixed and NP-40 permeabilized human NCI-H1299 lung carcinoma cells. The cells were labeled with rabbit polyclonal anti-unphosphorylated β-Tubulin (TP1811). The antibody was detected using goat anti-rabbit DyLight® 594.

Anti-βIII-Tubulin Antibody - Background

Microtubules (MTs) are cytoskeletal elements that play an essential role in cell division and cytoplasmic organization. MTs are dynamic polymers of α/β-tubulin heterodimers. At least two populations of MTs, called dynamic and stable according to their rates of turnover, are readily distinguishable in cells. The proteins associated with MTs (MAPs) are among the best-known factors that regulate MT dynamics and stability. In addition, a variety of different post-translational modifications may also regulate MT dynamics and stability. Phosphorylation is one of these modifications and it can occur on serine, threonine, and tyrosine residues in β-Tubulin isoforms. Multiple kinases can phosphorylate Ser-444 at the C-terminus of βIII-Tubulin in vitro. Unphosphorylated Ser-444 in βIII-Tubulin is an early marker for cells of neuronal lineage, while phosphorylation of Ser-444 is upregulated after neuronal maturation and may preferentially occur in assembled MTs. By contrast, Cdk1 phosphorylation of Ser-172 in β-Tubulin occurs in mitotic cells and may impair tubulin incorporation into microtubules.