Product Information

Anti-β-Tubulin Antibody, Mouse Monoclonal

Clone TUB 2.1, purified from hybridoma cell culture

T5201

Product Description

Monoclonal Anti-β-Tubulin (mouse IgG1 isotype) is derived from the hybridoma TUB 2.1 produced by the fusion of mouse myeloma cells and splenocytes from a mouse immunized with purified rat brain tubulin.[1] The isotype is determined using a double diffusion immunoassay using Mouse Monoclonal Antibody Isotyping Reagents, Cat. No. ISO2.

Monoclonal Anti-β-Tubulin specifically recognizes an epitope in the carboxy-terminal part of all five isoforms of β-tubulin (between amino acids 281-446). It reacts with the chymotryptic β-Lc and β-Sc tubulin fragments and does not seem to exhibit any apparent mouse brain β-tubulin isoform related specificity.[2,3] It localizes β-tubulin in human,[4] bovine,[5] rat,[6] mouse,[3], sea urchin,[7] and plant[8] β-tubulin. It recognizes all five isoforms of β-tubulin (β1- β5),[2] and may be used in immunoblotting,[3] 2-dimensional electrophoresis,[2] sperm motility,[6] and immunohistochemistry.[7] It is immunospecific for tubulin as determined by indirect immunofluorescent staining and immunoblotting procedures.

Tubulin is the major building block of microtubules. This intracellular cylindrical filamentous structure is present in almost all eukaryotic cells. Microtubules function as structural and mobile elements in mitosis, intracellular transport, flagellar movement, and in the cytoskeleton. Tubulin is a heterodimer, which consists of α-tubulin and β-tubulin; both subunits have a molecular weight of 55 kDa and share considerable homology. The most studied tubulins have been isolated from vertebrate brains. The microtubules can be viewed in immunofluorescent microscopy, which enables the observation of the intracellular organization of proteins that are in the form of a supramolecular structure.[9-11]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~ 2.0 mg/mL

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For extended storage, freeze at –20 °C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Indirect immunofluorescence: A working concentration of 10-20 µg/mL is determined using cultured chicken fibroblasts.

Immunoblotting: A working concentration of 2-4 µg/mL is determined using chicken fibroblasts cell extract.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration.

References

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