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Product datasheet for BM170

beta III Tubulin (TUBB3) Mouse Monoclonal Antibody [Clone ID: TU-20]

Product data:

Product Type:	Primary Antibodies
Clone Name:	TU-20
Applications:	ELISA, FC, IF, IHC, WB
Recommended Dilution:	**Immunohistochemistry on Frozen Sections:** 5-10 µg/ml (1/40-1/80). **Immunohistochemistry on Paraffin Sections:** 20 µg/ml (1/20). Proteinase K treatment for antigen retrieval is recommended. ***Recommended Positive Control:*** Human cortex. Has been described to work in**ELISA**, **Immunocytochemistry**, **Flow Cytometry** and **Western blot**.
Reactivity:	Broad
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Synthetic C-terminal peptide
Specificity:	This antibody recognizes the C-terminal peptide sequence ESESQGPK (aa 441-448) of Human class III β-Tubulin specific for neurones. The antibody is a highly specific marker for neuronal tissue. TU-20 is very useful for the detection of microtubule structures on fixed cells. MAb TU-20 is widely cross-reactive among species (recognized epitope conserved within all species).
Formulation:	Stock solution contains PBS pH 7.2 with 0.09% Sodium Azide as preservative and 5 mg/ml BSA as stabilizer State: Purified State: Lyophilized purified from Ascites
Reconstitution Method:	Restore in 0.5 ml distilled water.
Concentration:	0.4 mg/ml (after reconstitution)
Conjugation:	Unconjugated

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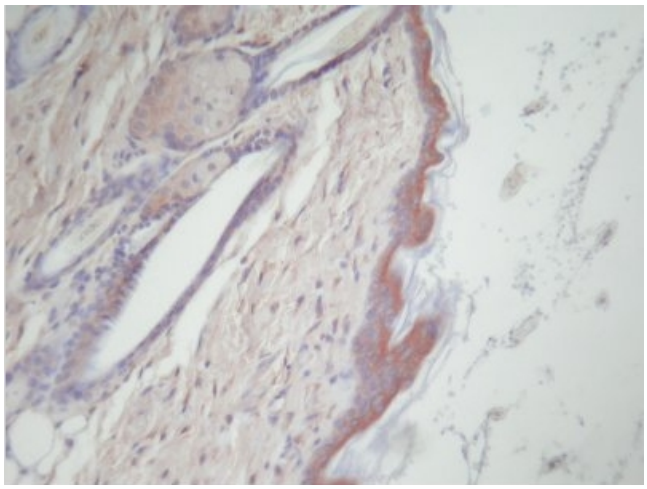
Storage:	Store lyophilized at 2-8°C for 6 months or at -20°C long term. After reconstitution store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C long term. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	tubulin beta 3 class III
Database Link:	Q13509
Background:	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 the cytoskeleton. Except in the simplest eukaryotes, tubulin exists in all cells as a mixture of similar, but not identical, sets of alpha and beta tubulin polypeptides. Within either set of polypeptides, individual subunits diverge from each other (both within and across species) at less than 10% of the amino acid positions. The most extreme diversity is localized to the 15 residues of the carboxy terminal. For beta tubulin five evolutionarily conserved isotype clones have been identified. These are almost totally conserved in the subunits utilized in the same cell types of different species, with the exception of the hematopoietic beta tubulin which is the most highly divergent in sequence and is not conserved between species. Research has been centered around the hypothesis that these beta tubulin isotypes contribute to unique functional properties. It has been reported that the different isotypes of tubulin differ from each other in their ability to polymerize into microtubules. The monoclonal antibody from hybridoma SDL.3D10 can stimulate microtubule assembly when reconstituted with tubulin, tau or MAP2.
Synonyms:	Tubulin beta-3 chain, Tubulin beta-III, Tubulin beta-4

Note:

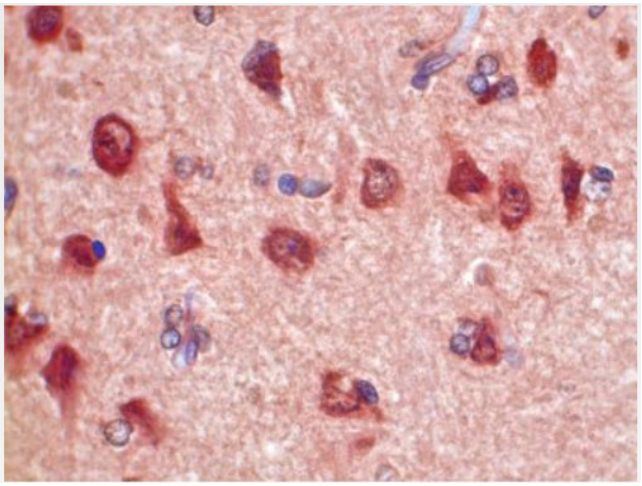
Protocol: **Protocol with Frozen, ice-cold Acetone-Fixed Sections:**
The whole procedure is performed at room temperature.
1. Wash in PBS.
2. Block endogenous peroxidase.
3. Wash in PBS.
4. Block with 10% normal goat serum in PBS for 30min. in a humid chamber.
5. Incubate with primary antibody (dilution see datasheet) for 1h in a humid chamber.
6. Wash in PBS.
7. Incubate with secondary antibody (peroxidase-conjugated goat anti mouse IgG+IgM (H+L) minimal-cross reaction to human) for 1h in a humid chamber.
8. Wash in PBS.
9. Incubate with AEC substrate (3-amino-9-ethylcarbazol) for 12min.
10. Wash in PBS.
11. Counterstain with Mayer's hemalum.

Protocol with Formalin-Fixed, Paraffin-Embedded Sections:
The whole procedure is performed at room temperature.
1. Deparaffinize and rehydrate tissue section.
2. Incubate the tissue section with proteinase K for 7min.
3. Wash in distilled water.
4. Block endogenous peroxidase.
5. Wash in PBS.
6. Block with 10% normal goat serum in PBS for 30min. in a humid chamber.
7. Incubate with primary antibody (dilution see datasheet) for 1h in a humid chamber.
8. Wash in PBS.
9. Incubate with secondary antibody (peroxidase-conjugated goat anti mouse IgG+IgM (H+L) minimal-cross reaction to human) for 1h in a humid chamber
10. Wash in PBS.
11. Incubate with AEC substrate (3-amino-9-ethylcarbazol) for 12min.
12. Wash in PBS.
13. Counterstain with Mayer's hemalum.

Product images:



TUBB3/TUBB4 antibody staining of Rat Skin Paraffin Section.



TUBB3/TUBB4 antibody staining of Human Brain Cortex Paraffin Section.