

## Product datasheet for **BM169S**

### **beta V Tubulin (TUBB) (N-term) (Loading Control) Mouse Monoclonal Antibody [Clone ID: TU-06]**

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	TU-06
Applications:	IF, IHC, WB
Recommended Dilution:	Immunohistochemistry (paraffin sections): 5 µg/ml, Positive tissue: heart Immunocytochemistry: 2 µg/ml. Staining technique: fixed and permeabilized cells. Positive control: 3T3 mouse embryonal fibroblast cell line Western Blot (reducing conditions): 1 µg/ml, 60 min. Positive control: HPB-ALL human peripheral blood leukemia cell line. Sample preparation: Resuspend approx. 50 mil. cells in 1 ml cold Lysis buffer (1% laurylmaltoside in 20 mM Tris/Cl, 100 mM NaCl pH 8.2, 50 mM NaF including Protease inhibitor Cocktail). Incubate 60 min on ice. Centrifuge to remove cell debris. Mix lysate with reducing Laemmli SDS-PAGE sample buffer.
Reactivity:	All Species
Host:	Mouse
Isotype:	IgM
Clonality:	Monoclonal
Immunogen:	Beta-subunits of porcine brain tubulin
Specificity:	The antibody recognizes an epitope (aa 81-95) on phylogenetically conserved N-terminal structural domain of beta-tubulin (recognizes all beta-tubulin isoforms) in various species.
Formulation:	Tris buffered saline (TBS) with 15 mM sodium azide, approx. pH 8.0 State: Purified State: Liquid Ig fraction
Concentration:	lot specific
Purification:	Precipitation methods; purity: > 95% (by SDS-PAGE)
Conjugation:	Unconjugated
Storage:	Store the antibody at 2 - 8 °C. Do not freeze.
Stability:	Shelf life: one year from despatch.



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**Gene Name:** tubulin beta class I

**Database Link:** [P07437](#)

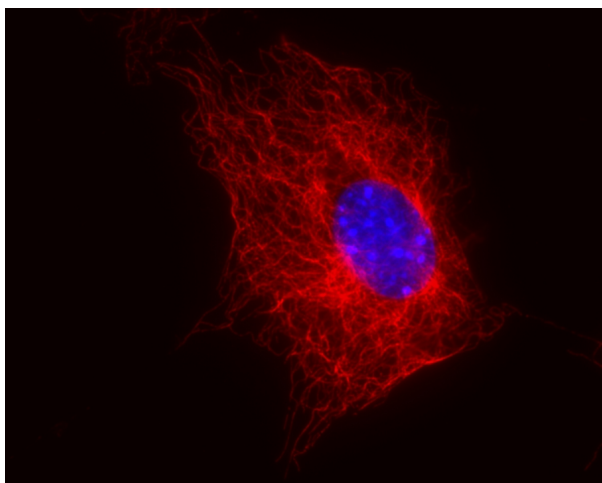
**Background:** The microtubules are intracellular dynamic polymers made up of evolutionarily conserved polymorphic alpha/beta-tubulin heterodimers and a large number of microtubule-associated proteins (MAPs). The microtubules consist of 13 protofilaments and have an outer diameter 25 nm. Microtubules have their intrinsic polarity; highly dynamic plus ends and less dynamic minus ends. Microtubules are required for vital processes in eukaryotic cells including mitosis, meiosis, maintenance of cell shape and intracellular transport. Microtubules are also necessary for movement of cells by means of flagella and cilia. In mammalian tissue culture cells microtubules have their minus ends anchored in microtubule organizing centers (MTOCs). The GTP (guanosinetriphosphate) molecule is an essential for tubulin heterodimer to associate with other heterodimers to form microtubule. In vivo, microtubule dynamics vary considerably. Microtubule polymerization is reversible and a populations of microtubules in cells are on their minus ends either growing or shortening this phenomenon is called dynamic instability of microtubules. On a practical level, microtubules can easily be stabilized by the addition of non-hydrolysable analogues of GTP (eg. GMPPCP) or more commonly by anti-cancer drugs such as Taxol. Taxol stabilizes microtubules at room temperature for many hours. Using limited proteolysis by enzymes both tubulin subunits can be divided into N-terminal and C-terminal structural domains. The beta-tubulin (relative molecular weight about 50 kDa) is counterpart of alpha-tubulin in tubulin heterodimer, it is coded by multiple tubulin genes and it is also posttranslationally modified. Heterogeneity of subunit is concentrated in C-terminal structural domain.

**Synonyms:** Tubulin beta chain, Tubulin beta-5 chain

## Product images:



Western Blotting analysis (reducing conditions) of HPB-ALL human peripheral blood leukemia cell line. Lane 1: negative control. Lane 2, 3, 4, 5, 6: immunostaining with anti-beta-tubulin (TU-06; dilution 0, 5 ug/ml, 1 ug/ml, 2 ug/ml, 4 ug/ml, 5 ug/ml)



Immunofluorescence staining of 3T3 mouse embryonal fibroblast cell line using anti-beta-tubulin (TU-06) (detection by Goat anti-mouse IgM Cy?). Nucleus is stained with DAPI (blue).