

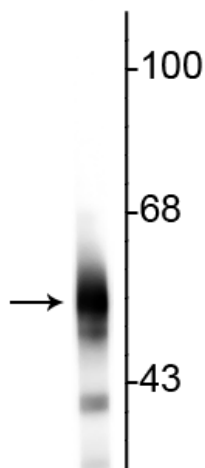
Product Datasheet

Anti-Tubulin, beta III

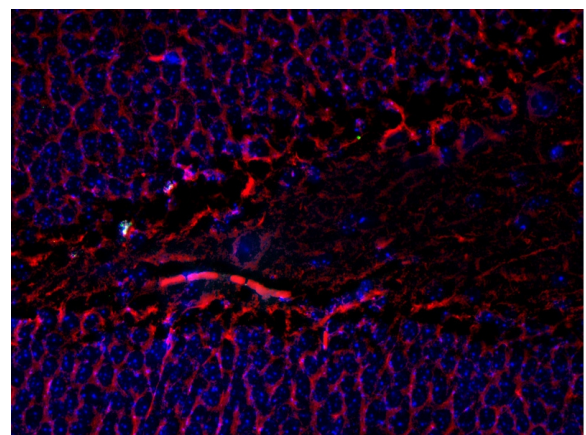
Overview

Catalog #	2020-TUB
Host Species	Mouse Monoclonal
Isotype	IgG _{2a}
Clone	AA10
Format	Protein G Purified
Applications	WB 1:10000 IHC 1:1000 ICC
Species Tested	Mouse, Rat
Expected Reactivity	Bovine, Canine, Feline, Goat, Guinea Pig, Hamster, Horse, Human, Non-Human Primate, Rabbit, Sheep, Vole
Immunogen	Synthetic peptide corresponding to amino acid residues specific to rat beta III tubulin, conjugated to keyhole limpet hemocyanin (KLH).
Molecular Weight	55 kDa
Cite this Antibody	PhosphoSolutions Cat# 2020-TUB, RRID:AB_2492275

Images



Western blot of rat cortical lysate showing specific immunolabeling of the ~55 kDa beta III tubulin protein



Immunostaining of mouse dentate gyrus showing beta III tubulin (red, 1:1000). The blue is staining nuclei.
Photo courtesy of Robert Wine.

Details

Target Description	Tubulin is the major constituent of microtubules, existing as a heterodimer of the α and β subunits. The beta III isoform of tubulin is found almost exclusively in neuronal processes of adult tissues and is therefore an excellent marker for neurons. Neuron specific, posttranslational modifications within the C-terminal domain of beta III tubulin have been shown to be developmentally regulated suggesting that they may serve to modulate the interaction of tubulin with microtubule associated proteins (Lee et al., 1990). Additionally, beta III tubulin has been found to be highly expressed in cancer cells such as small cell lung cancer, large cell neuroendocrine carcinoma and adenocarcinomas and is correlated with an increasing histological degree of malignancy (Katsetos et al., 2003)
Specificity	Specific for endogenous levels of the ~55 kDa beta III tubulin protein. This clone is similar to the monoclonal antibody Tuj1.
Production/Purification	Protein G purified culture supernatant.
Quality Control	Western blots performed on each lot.
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 100 μ g per ml BSA and 50% glycerol.
Storage	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol.
Stability	After date of receipt, stable for at least 1 year at -20°C.

Significant Citations

Ghersa, F., Delsouc, M.B., Goyeneche, A.A., Vallcaneras, S.S., Meresman, G., Telleria, C.M. and Casais, M., 2019. Reduced inflammatory state promotes reinnervation of endometriotic-like lesions in TNFRp55 deficient mice. *Molecular Human Reproduction*, 25(7), pp.385-396.

Ka, M. and Kim, W.Y., 2016. Microtubule-actin crosslinking factor 1 is required for dendritic arborization and axon outgrowth in the developing brain. *Molecular Neurobiology*, 53(9), pp.6018-6032.

Cooper, R.J. and Spitzer, N., 2015. Silver nanoparticles at sublethal concentrations disrupt cytoskeleton and neurite dynamics in cultured adult neural stem cells. *Neurotoxicology*, 48, pp.231-238.

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