

Mouse Anti- Beta III Tubulin [2G10]: MC0163, MC0163RTU7

Intended Use: For Research Use Only

Description: Tubulin is a major cytoskeleton component that has five distinct forms, designated α , β , γ , δ and ϵ tubulin. α and β Tubulins form heterodimers which multimerize to form a microtubule filament. Multiple β Tubulin isoforms ($\beta 1$, $\beta 2$, $\beta 3$, $\beta 4$, $\beta 5$, $\beta 6$ and $\beta 8$) have been characterized and are expressed in mammalian tissues. $\beta 1$ and $\beta 4$ are present throughout the cytosol, $\beta 2$ is present in the nuclei and nucleoplasm, and $\beta 3$ is a neuron-specific cytoskeletal protein. γ Tubulin forms the gammaosome, which is required for nucleating microtubule filaments at the centrosome. Both δ Tubulin and ϵ Tubulin are associated with the centrosome. δ Tubulin is a homolog of the Chlamydomonas δ Tubulin Uni3 and is found in association with the centrioles, whereas ϵ Tubulin localizes to the pericentriolar material. ϵ Tubulin exhibits a cell cycle-specific pattern of localization; first associating with only the older of the centrosomes in a newly duplicated pair, and later associating with both centrosomes.

Specifications

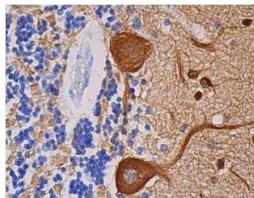
Clone: 2G10
 Source: Mouse
 Isotype: IgG2a/k
 Reactivity: Human, rat, mouse, bovin
 Localization: Cytoplasm
 Formulation: Antibody in PBS pH 7.4, containing BSA and $\leq 0.09\%$ sodium azide (NaN₃)
 Storage: Store at 2°- 8°C
 Applications: IHC, ICC/IF, IP, WB
 Package:

Description	Catalog No.	Size
Beta III Tubulin Concentrated	MC0163	1 ml
Beta III Tubulin Prediluted	MC0163RTU7	7 ml

IHC Procedure*

Positive Control Tissue: Brain
 Concentrated Dilution: 50-250
 Pretreatment: Citrate pH6.0 or EDTA pH8.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C
 Incubation Time and Temp: 30-60 minutes @ RT
 Detection: Refer to the detection system manual

* Result should be confirmed by an established diagnostic procedure.



FFPE human cerebellum tissue stained with anti-Beta III Tubulin using DAB showing cytoplasmic staining of Purkinje cells and nuclear staining of cells in molecular layer

References:

1. A single allele of Hdac2 but not Hdac1 is sufficient for normal mouse brain development in the absence of its paralog. Hagelkruys, A et al. Development 141:604-16. 2014.
2. Accelerated high-yield generation of limb-innervating motor neurons from human stem cells. Amoroso MW, et al. J Neurosci 33:574-86, 2013.
3. Regional hippocampal differences in AKT survival signaling across the lifespan: implications for CA1 vulnerability with aging. Jackson TC, et al. Cell Death Differ 16:439-48, 2009.
4. Differentiation of human embryonic stem cells to regional specific neural precursors in chemically defined medium conditions. Erceg S, et al. PLoS ONE 3:e2122, 2008.