

PRODUCT INFORMATION



Δ^2 α -Tubulin Rabbit Monoclonal Antibody (Clone RM447)

Item No. 35808

Overview and Properties

Contents:	This vial contains 100 μ l of protein A-affinity purified monoclonal antibody.
Immunogen:	Peptide corresponding to human Δ^2 α -tubulin
Cross Reactivity:	(+) Δ^2 α -Tubulin
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	\geq 1 year
Storage Buffer:	PBS, with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM447
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:100-1:200 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Description

Δ^2 α -Tubulin is a non-tyrosinatable variant of tubulin that lacks a carboxy-terminal glutamyl-tyrosine group on its α -subunit.^{1,2} It is expressed in a wide variety of cell types, including fibroblasts and adrenal cortical cells, and accounts for approximately 35% of brain tubulin. Δ^2 α -Tubulin is primarily localized to stable cellular structures such as centrosomes and primary cilia, however, it localizes to microtubule bundles and paracrystalline bundles following cellular exposure to paclitaxel or vinblastine, respectively.¹ It is also subject to post-translational modifications, including glutamylation, and levels of glutamylated Δ^2 α -tubulin are increased in mouse models of acute epileptic seizure and slow-developing Alzheimer's disease.³ Cayman's Δ^2 α -Tubulin Rabbit Monoclonal Antibody (Clone RM447) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Paturle-Lafanechère, L., Manier, M.L., Trigault, N., *et al.* Accumulation of delta 2-tubulin, a major tubulin variant that cannot be tyrosinated, in neuronal tissues and in stable microtubule assemblies. *J. Cell Sci.* **107**(Pt 6), 1529-1543 (1994).
2. Paturle, L., Wehland, J., Margolis, R.L., *et al.* Complete separation of tyrosinated, detyrosinated, and nontyrosinatable brain tubulin subpopulations using affinity chromatography. *Biochemistry* **28**(6), 2698-2704 (1989).
3. Vi, H.T., Akatsu, H., Hashizume, Y., *et al.* Increase in α -tubulin modifications in the neuronal processes of hippocampal neurons in both kainic acid-induced epileptic seizure and Alzheimer's disease. *Sci. Rep.* **7**, 40205 (2017).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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