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AP54886SU-N Polyclonal Antibody to Delta-2 Tubulin (Detyrosinated & Decarboxylated alpha-Tubulin) - Serum

Quantity: 0.2 ml

Background: Microtubules are involved in a wide variety of cellular activities ranging from mitosis

and transport events to cell movement and the maintenance of cell shape. Tubulin itself is a globular protein which consists of two polypeptides (alpha and beta tubulin). Alpha and beta tubulin dimers are assembled to 13 protofilaments that form a microtubule of 22 nm diameter. Tyrosine ligase adds a C-terminal tyrosin to

monomeric alpha tubulin. Assembled microtubules can again be detyrosinated by a cytoskeleton associated carboxypeptidase. Detyrosinated alpha tubulin is referred to as Glu-tubulin. Another post-translational modification of detyrosinated alpha tubulin is C-terminal polyglutamylation which is characteristic for microtubules in neuronal cells and the mitotic spindle. Alpha tubulin is not suitable as a loading control in adipose tissue as expression of tubulin in adipose tissue is very low (Spiegelman and Farmer, *Cell*, 1982, 29(1): 53-60, "in cells undergoing adipose differentiation actin

synthesis decreases by 90%").

Host: Rabbit

Immunogen: Synthetic peptides derived from C-terminal domain of Human Tubulin

Format: State: Lyophilized powder

Preservatives: None

Reconstitution: Restore in distilled water.

Applications: ELISA.

Western Blot: 1/500-1/2000.

Immunohistochemistry: 1/50-1/200.

Other applications not tested. Optimal dilutions are dependent on conditions and

should be determined by the user.

Specificity: Reacts with Delta-2 Tubulin (Detyrosinated and Decarboxylated alpha-Tubulin).

Species Reactivity: Tested: Human.

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. Shelf life: one year from despatch.

General Readings: 1. Walter WJ, Beránek V, Fischermeier E, Diez S. Tubulin acetylation alone does not

affect kinesin-1 velocity and run length in vitro. PLoS One. 2012;7(8):e42218. doi: 10.1371/journal.pone.0042218. Epub 2012 Aug 1. PubMed PMID: 22870307. 2. Peris L, Thery M, Fauré J, Saoudi Y, Lafanechère L, Chilton JK, et al. Tubulin tyrosination is a major factor affecting the recruitment of CAP-Gly proteins at microtubule plus ends. J Cell Biol. 2006 Sep 11;174(6):839-49. Epub 2006 Sep 5.

PubMed PMID: 16954346.

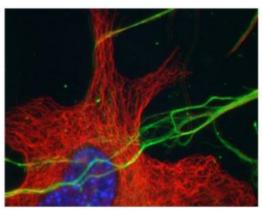
3. Mialhe A, Lafanechère L, Treilleux I, Peloux N, Dumontet C, Brémond A, et al.



Tubulin detyrosination is a frequent occurrence in breast cancers of poor prognosis. Cancer Res. 2001 Jul 1;61(13):5024-7. PubMed PMID: 11431336.

Pictures:

AP54886SU-N Delta-2 Tubulin Antibody Staining of Human neurone



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