

α -Tubulin

Cat.No. 302 206; Polyclonal chicken antibody, 50 μ g specific antibody (lyophilized)

Data Sheet

Reconstitution/ Storage	50 μ g purified IgY, lyophilized. Ovalbumin was added for stabilization. For reconstitution add 50 μ l H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use. Before storing at -20°C add 1 vol of glycerol.
Applications	WB: 1 : 1000 up to 1 : 5000 AP-staining IP: not tested yet ICC: 1 : 500 up to 1 : 1000 IHC: 1 : 500 IHC-P/FFPE: 1 : 200
Immunogen	Synthetic peptide corresponding to AA 419 to 435 from human α -tubulin 4A (UniProt Id: P68366)
Reactivity	Reacts with: human (P68366), rat (Q5XIF6), mouse (P68368). Other species not tested yet.
Specificity	Specific for α -tubulin
matching control	302-21P

TO BE USED IN VITRO / FOR RESEARCH ONLY
NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS

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, **α -tubulin** and **β -tubulin**. α - and β -tubulin dimers are assembled to 13 protofilaments that form a microtubule of 22 nm diameter. Tyrosine ligase adds a C-terminal tyrosine to monomeric α -tubulin. Assembled microtubules can again be detyrosinated by a cytoskeleton associated carboxypeptidase. Detyrosinated α -tubulin is referred to as **Glu- α -tubulin**. Another post-translational modification of detyrosinated α -tubulin is C-terminal polyglutamylation which is characteristic for microtubules in neuronal cells and the mitotic spindle. A third variant of detyrosinated α -tubulin is **Δ 2-tubulin** which lacks the C-terminal glutamic acid. It cannot be tyrosinated by tyrosine ligase and is one of the dominant α -tubulin isoforms in neurons.

Selected General References

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