

α -Tubulin

Cat.No. 302 008; Recombinant rabbit antibody, 100 μ g purified IgG (lyophilized)

Data Sheet

Reconstitution/ Storage	100 μ g purified IgG, lyophilized. For reconstitution add 100 μ l H ₂ O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	WB: 1 : 1000 up to 1 : 5000 (AP staining) IP: not tested yet ICC: 1 : 500 (see remarks) IHC: 1 : 500 IHC-P/FFPE: not tested yet
Clone	RbF2C
Subtype	IgG1 (k light chain)
Immunogen	Recombinant protein corresponding to AA 1 to 1 from bovine α -Tubulin
Reactivity	Reacts with: human, rat, mouse, cow. Other species not tested yet.
Specificity	Specific for α -tubulin.
Remarks	This antibody is a chimeric antibody based on the monoclonal mouse antibody F2C. The constant regions of the heavy and light chains have been replaced with rabbit specific sequences. The antibody can therefore be used with standard anti-rabbit secondary reagents. The antibody has been expressed in mammalian cells and carries a Strep-tag® at the C-terminus of the heavy chain. ICC: Methanol or PFA fixation

Selected References SYSY Antibodies

SNAP23 depletion enables more SNAP25/calcium channel excytosome formation to increase insulin exocytosis in type 2 diabetes.

Liang T, Qin T, Kang F, Kang Y, Xie L, Zhu D, Dolai S, Greitzer-Antes D, Baker RK, Feng D, Tuduri E, et al. JCI insight (2020) 53: . . **WB; tested species: human,mouse**

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.