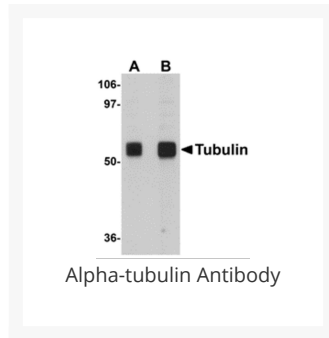




# Alpha-tubulin Antibody

Cat. No.: 5103



## Ψ Specifications

|                             |                                                                                                                                                                                                    |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>HOST SPECIES:</b>        | Chicken                                                                                                                                                                                            |
| <b>SPECIES REACTIVITY:</b>  | Human, Mouse, Rat                                                                                                                                                                                  |
| <b>HOMOLOGY:</b>            | Predicted species reactivity based on immunogen sequence: Bovine: (100%), Pig: (100%), Chicken: (100%)                                                                                             |
| <b>IMMUNOGEN:</b>           | Tubulin antibody was raised against a 16 amino acid synthetic peptide near the amino terminus of human Tubulin.<br><br>The immunogen is located within amino acids 140 - 190 of Alpha-tubulin.     |
| <b>TESTED APPLICATIONS:</b> | ELISA, WB                                                                                                                                                                                          |
| <b>APPLICATIONS:</b>        | Tubulin antibody can be used for detection of Tubulin by Western blot at 0.5 - 1 µg/mL.<br><br>Antibody validated: Western Blot in rat samples. All other applications and species not yet tested. |
| <b>POSITIVE CONTROL:</b>    | 1) Cat. No. 1463 - Rat Brain Tissue Lysate                                                                                                                                                         |

## Ψ Properties

|                      |                                                                                |
|----------------------|--------------------------------------------------------------------------------|
| <b>PURIFICATION:</b> | Alpha-tubulin Antibody is affinity chromatography purified via peptide column. |
| <b>CLONALITY:</b>    | Polyclonal                                                                     |

|                            |                                                                                                                                                                                                                                                         |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ISOTYPE:</b>            | IgY                                                                                                                                                                                                                                                     |
| <b>CONJUGATE:</b>          | Unconjugated                                                                                                                                                                                                                                            |
| <b>PHYSICAL STATE:</b>     | Liquid                                                                                                                                                                                                                                                  |
| <b>BUFFER:</b>             | Alpha-tubulin Antibody is supplied in PBS containing 0.02% sodium azide.                                                                                                                                                                                |
| <b>CONCENTRATION:</b>      | 1 mg/mL                                                                                                                                                                                                                                                 |
| <b>STORAGE CONDITIONS:</b> | Alpha-tubulin antibody can be stored at 4 °C for three months and -20 °C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |

## Additional Info

|                         |                                                                            |
|-------------------------|----------------------------------------------------------------------------|
| <b>OFFICIAL SYMBOL:</b> | TUBA3C                                                                     |
| <b>ALTERNATE NAMES:</b> | Alpha-tubulin Antibody: TUBA2, bA408E5.3, TUBA2, TUBA3D, Alpha-tubulin 2   |
| <b>ACCESSION NO.:</b>   | NP_005992                                                                  |
| <b>PROTEIN GI NO.:</b>  | 17921993                                                                   |
| <b>GENE ID:</b>         | 7278                                                                       |
| <b>USER NOTE:</b>       | Optimal dilutions for each application to be determined by the researcher. |

## Background and References

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BACKGROUND:</b> | Alpha-tubulin Antibody: Alpha-tubulin belongs to the tubulin superfamily, which is composed of six distinct families. Along with beta-tubulins, alpha-tubulins are the major components of microtubules. These 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. Alpha- and beta-tubulin dimers are assembled to 13 protofilaments that form a microtubule of 22-nm diameter. Tyrosine ligase adds a C-terminal tyrosine to monomeric alpha-tubulin. Assembled microtubules can again be detyrosinated by a cytoskeleton-associated carboxypeptidase. Another post-translational modification of detyrosinated alpha-tubulin is C-terminal polyglutamylation, which is characteristic of microtubules in neuronal cells and the mitotic spindle. Like GAPDH and beta-Actin, this antibody makes an excellent loading control in immunoblots. |
| <b>REFERENCES:</b> | 1) McKean PG, Vaughan S, and Gull K. The extended tubulin family. J. Cell Sci.2001; 114:2723-33.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                    | 2) Barra HA, Arce CA, and Argarana CE. Posttranslational tyrosination/detyrosination of tubulin. Mol. Neurobiol.1988; 2:133-53.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                    | 3) Fukshima N, Furuta D, Hidaka Y, et al. Post-translational modifications of tubulin in the nervous system. J. Neurochem.2009; 109:683-693.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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