

## Datasheet: MCA2047

**BATCH NUMBER 171006**

|                      |                           |
|----------------------|---------------------------|
| <b>Description:</b>  | MOUSE ANTI TUBULIN BETA 3 |
| <b>Specificity:</b>  | TUBULIN BETA 3            |
| <b>Format:</b>       | Purified                  |
| <b>Product Type:</b> | Monoclonal Antibody       |
| <b>Clone:</b>        | TU-20                     |
| <b>Isotype:</b>      | IgG1                      |
| <b>Quantity:</b>     | 0.1 mg                    |

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

|                                | Yes | No | Not Determined | Suggested Dilution |
|--------------------------------|-----|----|----------------|--------------------|
| Flow Cytometry                 |     |    | ▪              |                    |
| Immunohistology - Frozen       | ▪   |    |                |                    |
| Immunohistology - Paraffin (1) | ▪   |    |                | 5 - 20 ug/ml       |
| ELISA                          |     |    | ▪              |                    |
| Immunoprecipitation            |     |    | ▪              |                    |
| Western Blotting (2)           | ▪   |    |                | 1 - 10 ug/ml       |
| Immunofluorescence             | ▪   |    |                |                    |

Where this antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

**(1) This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 is recommended for this purpose.**

**(2) TU-20 recognizes tubulin beta 3 under reducing conditions**

|                                 |  |
|---------------------------------|--|
| <b>Target Species</b>           | Human  |
| <b>Species Cross Reactivity</b> | <p>Reacts with: Mouse, Baboon, Rat, Hamster, Pig, Bovine</p> <p><b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.</p> |

|  |  |
|--|--|
| <b>Product Form</b>                      | Purified IgG - liquid  |
| <b>Preparation</b>                       | Purified IgG prepared from ascites by DEAE chromatography  |
| <b>Buffer Solution</b>                   | Phosphate buffered saline  |
| <b>Preservative Stabilisers</b>          | 0.09% Sodium Azide   |
| <b>Approx. Protein Concentrations</b>    | IgG concentration 1.0mg/ml   |
| <b>Immunogen</b>                         | <p>Synthetic peptide, ESESQGPK, corresponding to amino acids 441-448 of human class III beta tubulin coupled to Keyhole Limpet Hemocyanin (KLH).</p> <p>This sequence is conserved across all species.</p>   |
| <b>External Database Links</b>           | <p><b>UniProt:</b></p> <p><a href="#">Q13509</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p> <p><a href="#">10381</a>    TUBB3    <a href="#">Related reagents</a></p>  |
| <b>Synonyms</b>                          | TUBB4  |
| <b>RRID</b>                              | AB_2210682   |
| <b>Specificity</b>                       | <p><b>Mouse anti Tubulin beta 3 antibody, clone TU-20</b> recognizes class III beta-tubulin which is reported to be restricted to neuronal tissue.</p> <p>Mouse anti Tubulin beta 3 antibody, clone TU-20 has been used to investigate tumors of neuronal origin including neuroblastoma and ganglioneuroma. Class III beta tubulin has not been detected in tumors of non neuronal origin.</p>  |
| <b>Histology Positive Control Tissue</b> | Neuronal tissue  |
| <b>References</b>                        | <ol style="list-style-type: none"> <li>Dráberová, E. <i>et al.</i> (1998) Expression of class III beta-tubulin in normal and neoplastic human tissues. <a href="#">Histochem Cell Biol. 109 (3): 231-9.</a></li> <li>Hattermann, K. <i>et al.</i> (2010) The chemokine receptor CXCR7 is highly expressed in human glioma cells and mediates antiapoptotic effects. <a href="#">Cancer Res. 70: 3299-308.</a></li> <li>Rosito, M. <i>et al.</i> (2012) CXCL16 Orchestrates Adenosine A3 Receptor and MCP-1/CCL2 Activity to Protect Neurons from Excitotoxic Cell Death in the CNS. <a href="#">J Neurosci. 32: 3154-63.</a></li> <li>Nicot, A. and DiCicco-Bloom, E. (2001) Regulation of neuroblast mitosis is determined by PACAP receptor isoform expression. <a href="#">Proc Natl Acad Sci U S A. 98: 4758-63.</a></li> <li>Pěkníková, J. <i>et al.</i> (2001) Differential subcellular distribution of tubulin epitopes in boar spermatozoa: recognition of class III beta-tubulin epitope in sperm tail. <a href="#">Biol Reprod. 65:</a></li> </ol> |

[672-9.](#)

6. Huang, C.L. *et al.* (2010) Expression of ERCC1 and class III  $\beta$ -tubulin is associated with the survival of resected stage III non-small cell lung cancer patients treated with induction chemoradiotherapy using carboplatin-taxane. [Exp Ther Med. 1: 445-51.](#)

7. Yentur, S.P. *et al.* (2014) A decrease of regulatory T cells and altered expression of NK receptors are observed in subacute sclerosing panencephalitis. [Viral Immunol. 27 \(10\): 506-11.](#)

---

**Storage**

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

---

**Guarantee**

18 months from date of despatch.

---

**Health And Safety Information**

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2047>  
10040

---

**Regulatory**

For research purposes only

---

## Related Products

### Recommended Secondary Antibodies

|   |   |
|---|---|
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>   |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">HRP</a>   |
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>   |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>   |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>  |
| Goat Anti Mouse IgG (H/L) (STAR117...)  | <a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> ,<br><a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> ,<br><a href="#">FITC</a> , <a href="#">HRP</a> |
| Rabbit Anti Mouse IgG (STAR9...)        | <a href="#">FITC</a>  |
| Goat Anti Mouse IgG (STAR77...)         | <a href="#">HRP</a>   |
| Goat Anti Mouse IgG (Fc) (STAR120...)   | <a href="#">FITC</a> , <a href="#">HRP</a>  |

**North & South America**

Tel: +1 800 265 7376  
Fax: +1 919 878 3751  
Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide**

Tel: +44 (0)1865 852 700  
Fax: +44 (0)1865 852 739  
Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21  
Fax: +49 (0) 89 8090 95 50  
Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
'M354061:190624'

Printed on 18 Jan 2024