

Datasheet: MCA1571

**BATCH NUMBER 161432**

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|----------------------|---|
| <b>Description:</b>  | MOUSE ANTI HUMAN THYROID STIMULATING HORMONE RECEPTOR |
| <b>Specificity:</b>  | THYROID STIMULATING HORMONE RECEPTOR                  |
| <b>Other names:</b>  | THYROTROPIN RECEPTOR                                  |
| <b>Format:</b>       | Purified  |
| <b>Product Type:</b> | Monoclonal Antibody                                   |
| <b>Clone:</b>        | 4C1   |
| <b>Isotype:</b>      | IgG2a   |
| <b>Quantity:</b>     | 0.2 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             | ▪   |    |                | 1/100 - 1/1000     |
| Immunohistology - Frozen   | ▪   |    |                |                    |
| Immunohistology - Paraffin | ▪   |    |                | 1/1000 - 1/2000    |
| ELISA                      |     | ▪  |                |                    |
| Immunoprecipitation        | ▪   |    |                |                    |
| Western Blotting           | ▪   |    |                | 1/1000             |

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.

|                                 |   |
|---------------------------------|---|
| <b>Target Species</b>           | Human   |
| <b>Product Form</b>             | Purified IgG - liquid   |
| <b>Preparation</b>              | Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant |
| <b>Buffer Solution</b>          | Phosphate buffered saline   |
| <b>Preservative Stabilisers</b> | 0.09% Sodium Azide (NaN <sub>3</sub> )  |

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| <b>Carrier Free</b>                      | Yes  |
| <b>Approx. Protein Concentrations</b>    | IgG concentration 1.0 mg/ml  |
| <b>Immunogen</b>                         | External domain of human TSH receptor.   |
| <b>External Database Links</b>           | <p><b>UniProt:</b><br/> <a href="#">P16473</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">7253</a>    TSHR    <a href="#">Related reagents</a></p>  |
| <b>Synonyms</b>                          | LGR3   |
| <b>RRID</b>                              | AB_2272242   |
| <b>Fusion Partners</b>                   | Spleen cells from immunized BALB/c mice were fused with cells of the NS1/Ag4.1 myeloma cell line.  |
| <b>Specificity</b>                       | <b>Mouse anti Human thyroid stimulating hormone receptor, clone 4C1</b> recognizes the human thyroid stimulating hormone receptor (hTSHR), otherwise known as the thyrotropin receptor. Mouse anti Human thyroid stimulating hormone receptor, clone 4C1 binds to an extracellular domain of hTSHR.  |
| <b>Flow Cytometry</b>                    | Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.  |
| <b>Immunohistology</b>                   | This product does not require protein digestion pre-treatment of paraffin sections. This product does not require antigen retrieval using heat treatment prior to staining of paraffin sections.   |
| <b>Histology Positive Control Tissue</b> | Thyroid gland  |
| <b>References</b>                        | <ol style="list-style-type: none"> <li>1. Suh, J.M. <i>et al.</i> (2003) Regulation of the phosphatidylinositol 3-kinase, Akt/protein kinase B, FRAP/mammalian target of rapamycin, and ribosomal S6 kinase 1 signaling pathways by thyroid-stimulating hormone (TSH) and stimulating type TSH receptor antibodies in the thyroid gland. <a href="#">J Biol Chem. 278 (24): 21960-71.</a></li> <li>2. Kleinau, G. <i>et al.</i> (2011) From Molecular Details of the Interplay between Transmembrane Helices of the Thyrotropin Receptor to General Aspects of Signal Transduction in Family A G-protein-coupled Receptors (GPCRs). <a href="#">J Biol Chem. 286: 25859-71.</a></li> <li>3. Shepherd PS,<i>et al.</i> (1999) Identification of an important thyrotrophin binding site on the human thyrotrophin receptor using monoclonal antibodies. <a href="#">Mol Cell Endocrinol. 149:197-206.</a></li> <li>4. Oba, J. <i>et al.</i> (2017) Trends in hepatocyte growth factor, insulin-like growth factor 1, thyroid-stimulating hormone, and leptin expression levels in uveal melanoma patient serum and tumor tissues: correlation to disease progression. <a href="#">Melanoma Res. 27 (2):</a></li> </ol> |

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**Storage** This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee** 12 months from date of despatch.

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1571>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
Goat Anti Mouse IgG IgA IgM (STAR87...) [HRP](#)  
Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),  
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),  
[FITC](#), [HRP](#)  
Goat Anti Mouse IgG (STAR77...) [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

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

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