

Datasheet: MCA1571T

**BATCH NUMBER 151042**

<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>	20 µg

## 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

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 G from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<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>  <a href="#">P16473</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">7253</a>    TSHR    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	LGR3
<b>RRID</b>	AB_2303782
<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): 126-33.</a></li> </ol>

**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.

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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/MCA1571T>  
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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 \(MCA929\)](#)

**North & South** Tel: +1 800 265 7376

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Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

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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)  
'M365487:200529'

Printed on 11 Jul 2024

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