

# Datasheet: MCA1281

Description:	MOUSE ANTI HUMAN THYROID STIMULATING HORMONE RECEPTOR
Specificity:	THYROID STIMULATING HORMONE RECEPTOR
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	2C11
Isotype:	lgG1
Quantity:	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 <u>www.bio-rad-antibodies.com/protocols</u> .				
		Yes	No	Not Determined	Suggested Dilution
	Flow Cytometry				
	Immunohistology - Frozen				
	Immunohistology - Paraffin				
	ELISA				
	Immunoprecipitation				5ug/ml - 10ug/ml
	Western Blotting				5ug/ml - 10ug/ml
	Functional Assays (1)				
	necessarily exclude its us a guide only. It is recomm system using appropriate (1) <b>Removal of Sodium /</b>	nended the negative	at the use /positive o	er titrates the product f controls.	for use in their own
Target Species	Human				
Product Form	Purified IgG - liquid				
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant				
Buffer Solution	Phosphate buffered salin	e			
Preservative Stabilisers	0.09% sodium azide (Nal	N <sub>3</sub> )			

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Recombinant Human TSH receptor.
External Database Links	UniProt: <u>P16473</u> <u>Related reagents</u> Entrez Gene: <u>7253</u> TSHR <u>Related reagents</u>
Synonyms	LGR3
RRID	AB_2208261
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the NS1/Ag4.1 mouse myeloma cell line.
Specificity	Mouse anti Human thyroid stimulating hormone receptor antibody, clone 2C11 recognizes the human thyroid stimulating hormone receptor (TSHR) otherwise known as the thyrotropin receptor. TSHR is an important molecule in controlling the growth and function of the normal thyroid. Mouse anti Human thyroid stimulating receptor antibody recognises both native and
	denatured TSH receptor (binding to an epitope at the carboxy terminus between amino acids 354 and 359). It does inhibit binding of TSH. No cross reactivity has been observed with related LH and FSH receptors.
	Mouse anti Human thyroid stimulating hormone receptor antibody, clone 2C11 recognizes the mutant TSH receptor known as I167N as well as the wild type molecule ( <u>Costagliola <i>et</i></u> <u>al. 1998</u> )
References	<ol> <li>Costagliola, S. <i>et al.</i> (1998) Genetic immunization against the human thyrotropin receptor causes thyroiditis and allows production of monoclonal antibodies recognizing the native receptor. J Immunol. 160 (3): 1458-65.</li> <li>Shepherd PS <i>et al.</i> (1999) Identification of an important thyrotrophin binding site on the human thyrotrophin receptor using monoclonal antibodies. Mol Cell Endocrinol. 149 (1-2): 197-206.</li> <li>Akamizu, T. <i>et al.</i> (1999) Characterization of recombinant monoclonal antithyrotropin receptor antibodies (TSHRAbs) derived from lymphocytes of patients with Graves' disease: epitope and binding study of two stimulatory TSHRAbs. Endocrinology. 140 (4): 1594-601.</li> <li>Chen, C.R. <i>et al.</i> (2001) A full biological response to autoantibodies in Graves' disease requires a disulfide-bonded loop in the thyrotropin receptor N terminus homologous to a laminin epidermal growth factor-like domain. J Biol Chem. 276 (18): 14767-72.</li> </ol>

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6. Chen, C.R. *et al.* (2003) Targeted restoration of cleavage in a noncleaving thyrotropin receptor demonstrates that cleavage is insufficient to enhance ligand-independent activity. Endocrinology. 144: 1324-30.

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Narumi S *et al.* (2011) Nonclassic TSH resistance: TSHR mutation carriers with discrepantly high thyroidal iodine uptake. <u>J Clin Endocrinol Metab. 96 (8): E1340-5.</u>
 Allen, M.D. *et al.* (2011) Occupancy of both sites on the thyrotropin (TSH) receptor dimer is necessary for phosphoinositide signaling. <u>FASEB J. 25: 3687-94.</u>

Haas, A.K. *et al.* (2011) Mutations that silence constitutive signaling activity in the allosteric ligand-binding site of the thyrotropin receptor. <u>Cell Mol Life Sci. 68: 159-167.</u>
 Read, M.L. *et al.* (2011) Proto-oncogene PBF/PTTG1IP regulates thyroid cell growth and represses radioiodide treatment. Cancer Res. 71 (19): 6153-64.

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StorageThis product is shipped at ambient temperature. It is recommended to aliquot and store at<br/>-20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for<br/>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.

Guarantee 12 months from date of despatch

Health And Safety Material Safety Datasheet documentation #10040 available at:

Information	https://www.bio-rad-antibodies.com/SDS/MCA1281 10040			
Regulatory	For research purposes only			

### **Related Products**

#### **Recommended Secondary Antibodies**

Rabbit Anti Mouse IgG (STAR12)	RPE				
Goat Anti Mouse IgG IgA IgM (STAR87) <u>HRP</u>					
Goat Anti Mouse IgG (STAR76)	RPE				
Goat Anti Mouse IgG (STAR70)	<u>FITC</u>				
Goat Anti Mouse IgG (H/L) (STAR117)	Alk. Phos., DyLight®488, DyLight®550,				
	DyLight®650, DyLight®680, DyLight®800,				
	FITC, HRP				
Rabbit Anti Mouse IgG (STAR9)	<u>FITC</u>				
Goat Anti Mouse IgG (STAR77)	HRP				
Goat Anti Mouse IgG (Fc) (STAR120)	FITC, HRP				
Rabbit Anti Mouse IgG (STAR13)	HRP				
<b>Recommended Negative Controls</b>					

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

North & South	Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
America	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@bio-ra	ad.com	Email: antibody_sales_uk@bio-ra	id.com	Email: 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 'M409053:221017'

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