

# Novocastra™ Lyophilized Mouse Monoclonal Antibody Thyroid Stimulating Hormone

## Product Code: NCL-TSH

<b>Intended Use</b>	FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.
<b>Specificity</b>	Thyroid stimulating hormone (TSH). No reactivity with luteinising hormone, follicle stimulating hormone and human chorionic gonadotrophin.
<b>Clone</b>	QB2/6
<b>Ig Class</b>	IgG1
<b>Antigen Used for Immunizations</b>	TSH molecule.
<b>Hybridoma Partner</b>	Mouse myeloma (NS0).
<b>Preparation</b>	Lyophilized tissue culture supernatant containing sodium azide. Reconstitute with the volume of sterile distilled water indicated on the vial label.
<b>Effective on Frozen Tissue</b>	Yes.
<b>Effective on Paraffin Wax Embedded Tissue</b>	Yes.
<b>Recommendations on Use</b>	Immunohistochemistry on paraffin sections. <b>Enzyme Induced Epitope Retrieval (EIER):</b> Please follow the instructions for use in Novocastra Enzyme Proteinase K (IHC). <b>Suggested dilution:</b> 1:100 for 30 minutes at 25 °C. This is provided as a guide and users should determine their own optimal working dilutions. <b>Visualization:</b> Please follow the instructions for use in the Novolink™ Polymer Detection Systems. For further product information or support, contact your local distributor or regional office of Leica Biosystems, or alternatively, visit the Leica Biosystems Web site, <a href="http://www.LeicaBiosystems.com">www.LeicaBiosystems.com</a> <u>The performance of this antibody should be validated when utilized with other manual staining systems or automated platforms.</u>
<b>Positive Controls</b>	Immunohistochemistry: Normal human pituitary gland.
<b>Staining Pattern</b>	Cytoplasmic
<b>Storage and Stability</b>	Store unopened lyophilized antibody at 2-8 °C. Under these conditions, there is no significant loss in product performance up to the expiry date indicated on the vial label. The reconstituted antibody is stable for at least two months when stored at 2-8 °C. For long term storage, it is recommended that aliquots of the antibody are frozen at -20 °C (frost-free freezers are not recommended). Repeated freezing and thawing must be avoided. Prepare working dilutions on the day of use.
<b>Warnings and Precautions</b>	This reagent has been prepared from the supernatant of cell culture. As it is a biological product, reasonable care should be taken when handling it. This reagent contains sodium azide. A Material Safety Data Sheet is available upon request or available from <a href="http://www.LeicaBiosystems.com">www.LeicaBiosystems.com</a>





BIOSYSTEMS

## General Overview

Thyroid stimulating hormone (TSH or thyrotropin) is a glycoprotein produced in the thyrotrophs of the anterior pituitary gland. TSH and TSH receptor (TSHR) are key proteins in the control of thyroid function. TSH synthesis in the anterior pituitary is stimulated by thyrotropin-releasing hormone (TRH) and inhibited by thyroid hormone in a classical endocrine negative-feedback loop. TSH controls thyroid function upon its interaction with the G protein-coupled TSHR. TSH binding to its receptor on thyroid cells lead to the stimulation of second messenger pathways involving predominantly cAMP, inositol 1,4,5-triphosphate (IP3) and diacylglycerol (DAG), ultimately resulting in the modulation of thyroidal gene expression. TSH also acts as a factor protecting thyroid cells from apoptosis and plays a critical role in ontogeny.

## General References

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