

# Anti-TSH-Receptor, A-Chain Antibody

Mouse Monoclonal Antibody

Catalog # AH13554

## Product Information

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<b>Application</b>	IHC-P, IF, FC
<b>Primary Accession</b>	<a href="#">P16473</a>
<b>Other Accession</b>	<a href="#">160411</a>
<b>Reactivity</b>	Human
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	Mouse / IgG1
<b>Clone Names</b>	SPM223
<b>Calculated MW</b>	86844

## Additional Information

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<b>Gene ID</b>	7253
<b>Other Names</b>	CHNG1; hTSHRI; LGR3; Thyroid-stimulating hormone receptor; Thyrotropin receptor; Thyrotropin receptor I; TSHR
<b>Application Note</b>	Flow Cytometry (0.5-1ug/million cells); ,Immunofluorescence (1-2ug/ml); ,Immunohistology (Formalin-fixed) (1-2ug/ml for 30 minutes at RT),(Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, or 10mM Citrate buffer, pH6.0, for 10-20 min followed by cooling at RT for 20 minutes),Optimal dilution for a specific application should be determined.
<b>Format</b>	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
<b>Storage</b>	Store at 2 to 8°C.Antibody is stable for 24 months.
<b>Precautions</b>	Anti-TSH-Receptor, A-Chain Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Protein Information

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<b>Name</b>	TSHR
<b>Synonyms</b>	LGR3
<b>Function</b>	Receptor for the thyroid-stimulating hormone (TSH) or thyrotropin (PubMed: <a href="#">11847099</a> , PubMed: <a href="#">12045258</a> ). Also acts as a receptor for the

heterodimeric glycoprotein hormone (GPHA2:GPHB5) or thyrostimulin (PubMed:[12045258](#)). The activity of this receptor is mediated by G proteins which activate adenylate cyclase (PubMed:[11847099](#)). Plays a central role in controlling thyroid cell metabolism (By similarity).

**Cellular Location**

Cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein

**Tissue Location**

Expressed in thyroide cells (at protein level) (PubMed:11847099). Expressed in the thyroid (PubMed:2610690)

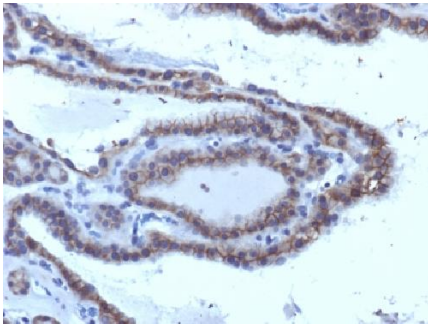
## Background

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Thyroid-stimulating hormone (TSH, also known as thyrotropin) is a glycoprotein involved in the control of thyroid structure and metabolism, which stimulates the release of the thyroid hormones. TSH is regulated by thyroid hormone (T3) and various retinoid compounds. TSH binds to the thyroid-stimulating hormone receptor (TSHR), which is cleaved into two subunits, A and B, and plays a major role in regulating thyroid function. The third cytoplasmic loop of TSHR has been identified as critical for its role in regulating inositol phosphate and cAMP formation. In Graves disease, an autoimmune disorder, TSHR is activated by autoantibodies, which may be stimulated by the cleavage of the A and B subunits.

## Images

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Formalin-fixed, paraffin-embedded human Thyroid Carcinoma stained with TSHRA Monoclonal Antibody (SPM223).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.