

## Product datasheet

# Anti-TSH Receptor/TSH-R antibody [SPM223] - BSA and Azide free ab269747

[1 Image](#)

### Overview

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<b>Product name</b>	Anti-TSH Receptor/TSH-R antibody [SPM223] - BSA and Azide free
<b>Description</b>	Mouse monoclonal [SPM223] to TSH Receptor/TSH-R - BSA and Azide free
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment corresponding to Human TSH Receptor/TSH-R. (A-Chain protein). Database link: <a href="#">P16473</a>
<b>Positive control</b>	Human thyroid carcinoma tissue.
<b>General notes</b>	ab269747 is a carrier free version of <a href="#">ab218328</a> . This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.

Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.

Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.

We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&As.

## Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	<a href="#">ab218328</a> was purified from Bioreactor Concentrate by Protein A/G.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	SPM223
<b>Isotype</b>	IgG1

## Applications

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Our [Abpromise guarantee](#) covers the use of **ab269747** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		Use a concentration of 1 - 2 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. (Primary incubation 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).

## Target

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<b>Function</b>	Receptor for thyrotropin. Plays a central role in controlling thyroid cell metabolism. The activity of this receptor is mediated by G proteins which activate adenylate cyclase. Also acts as a receptor for thyrostimulin (GPA2+GPB5).
<b>Tissue specificity</b>	Expressed in the thyroid.
<b>Involvement in disease</b>	Defects in TSHR are found in patients affected by hyperthyroidism with different etiologies. Somatic, constitutively activating TSHR mutations and/or constitutively activating G(s)alpha mutations have been identified in toxic thyroid nodules (TTNs) that are the predominant cause of hyperthyroidism in iodine deficient areas. These mutations lead to TSH independent activation of the cAMP cascade resulting in thyroid growth and hormone production. TSHR mutations are found in autonomously functioning thyroid nodules (AFTN), toxic multinodular goiter (TMNG) and hyperfunctioning thyroid adenomas (HTA). TMNG encompasses a spectrum of different clinical entities, ranging from a single hyperfunctioning nodule within an enlarged thyroid, to multiple hyperfunctioning areas scattered throughout the gland. HTA are discrete encapsulated neoplasms characterized by TSH-independent autonomous growth, hypersecretion of thyroid hormones, and TSH suppression. Defects in TSHR are also a cause of thyroid neoplasms (papillary and follicular cancers). Autoantibodies against TSHR are directly responsible for the pathogenesis and hyperthyroidism

of Graves disease. Antibody interaction with TSHR results in an uncontrolled receptor stimulation.  
Hypothyroidism, congenital, non-goitrous, 1  
Familial gestational hyperthyroidism  
Hyperthyroidism, non-autoimmune

**Sequence similarities**

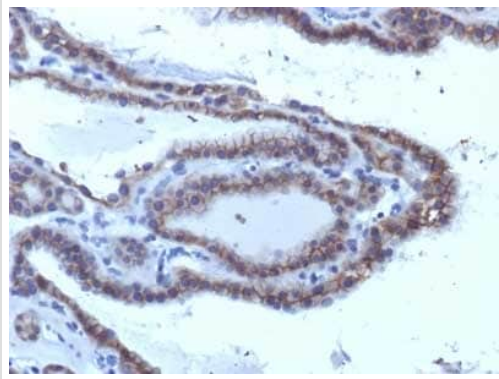
Belongs to the G-protein coupled receptor 1 family. FSH/LSH/TSH subfamily.  
Contains 7 LRR (leucine-rich) repeats.

**Cellular localization**

Cell membrane.

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**Images**



Immunohistochemical analysis of formalin-fixed, paraffin-embedded human thyroid carcinoma tissue labeling TSH Receptor/TSH-R with [ab218328](#) at 2 µg/ml.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab218328](#)).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TSH Receptor/TSH-R antibody ([ab269747](#))

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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