**Product datasheet**

**Anti-TSH Receptor/TSH-R antibody ab123488**

**Overview**

**Product name**: Anti-TSH Receptor/TSH-R antibody

**Description**: Goat polyclonal to TSH Receptor/TSH-R

**Host species**: Goat

**Tested applications**: Suitable for: WB

**Species reactivity**: Reacts with: Human

**Predicted to work with**: Sheep, Cow

**Immunogen**: Synthetic peptide corresponding to Human TSH Receptor/TSH-R aa 101-115 (internal sequence) (Cysteine residue). NP_000360.2; NP_001018046.1

Sequence:

C-SKVTHEIRNTRNL

**Positive control**: Human Thyroid gland lysate

**Properties**

**Form**: Liquid

**Storage instructions**: Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.

**Storage buffer**: pH: 7.30

Preservative: 0.02% Sodium azide

Constituents: 99% Tris buffered saline, 0.5% BSA

**Purity**: Immunogen affinity purified

**Purification notes**: Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity chromatography using the immunizing peptide.

**Clonality**: Polyclonal

**Isotype**: IgG

**Applications**

Our Abpromise guarantee covers the use of ab123488 in the following tested applications.

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

Tissue specificity
Expressed in the thyroid.

Involvement in disease
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.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 0.5 µg/ml. Predicted molecular weight: 28.4 kDa. Calculated MW of 28.4kDa according to NP_001018046.1 (Isoform 2)</td>
</tr>
</tbody>
</table>

Images

Anti-TSH Receptor/TSH-R antibody (ab123488) at 0.5 µg/ml + Human Thyroid gland lysate in RIPA buffer at 35 µg
Developed using the ECL technique.

**Predicted band size:** 28.4 kDa
Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors