abcam

Product datasheet

Anti-TSH Receptor/TSH-R antibody ab58917

2 Images

Overview

Product name	Anti-TSH Receptor/TSH-R antibody
Description	Rabbit polyclonal to TSH Receptor/TSH-R
Host species	Rabbit
Tested applications	**Suitable for:** ELISA, WB
Species reactivity	**Reacts with:** Human **Predicted to work with:** Sheep, Horse, Cow, Cat, Dog, African green monkey
Immunogen	Synthetic peptide within Human TSH Receptor/TSH-R aa 31-80. The exact sequence is proprietary. Sequence: CHQEEDFRVTCKDIQRIPSLPPSTQTLKLIETHLRTIPSHAF SNLPNISR Run BLAST with Run BLAST with
Positive control	Jurkat

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.2 Preservative: 0.09% Sodium azide Constituents: 2% Sucrose, PBS
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee	Our **Abpromise guarantee** covers the use of ab58917 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
ELISA		Use at an assay dependent concentration. Titre using peptide based assay, 1:312500.
WB		Use a concentration of 1.25 µg/ml. Predicted molecular weight: 87 kDa. Good results were obtained when blocked with 5% non-fat dry milk in 0.05% PBS-T.

Target

Function

Receptor for thyrothropin. 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

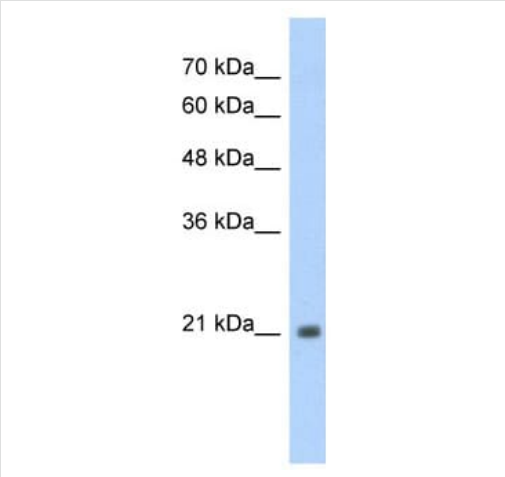
Sequence similarities

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

Cellular localization

Cell membrane.

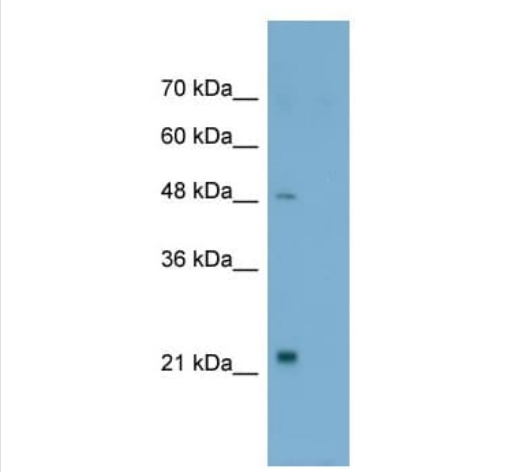
Images



Western blot - Anti-TSH Receptor/TSH-R antibody (ab58917)

Anti-TSH Receptor/TSH-R antibody (ab58917) + Human Jurkat

Predicted band size: 87 kDa
Additional bands at: 21 kDa (possible isoform)



Western blot - Anti-TSH Receptor/TSH-R antibody (ab58917)

All lanes : Anti-TSH Receptor/TSH-R antibody (ab58917) at 2.5 µg/ml

All lanes : Jurkat

Lysates/proteins at 25 µg per lane.

Predicted band size: 87 kDa
Additional bands at: 21 kDa (possible isoform), 48 kDa (possible isoform)

Gel Concentration: 12%

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

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