

Product datasheet

Anti-Thyroid Hormone Receptor beta antibody ab53170

1 References 2 Images

Overview

Product name	Anti-Thyroid Hormone Receptor beta antibody
Description	Rabbit polyclonal to Thyroid Hormone Receptor beta
Host species	Rabbit
Tested applications	Suitable for: WB, ICC/IF
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide derived from human Thyroid Hormone Receptor beta
Positive control	LoVo nuclear lysate
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>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, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 50% Glycerol (glycerin, glycerine), 0.87% Sodium chloride, PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our [Abpromise guarantee](#) covers the use of ab53170 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
WB		1/500 - 1/1000. Detects a band of approximately 53 kDa (predicted molecular weight: 53 kDa).
ICC/IF		Use a concentration of 1 - 5 µg/ml.

Target

Function

High affinity receptor for triiodothyronine.

Involvement in disease

Defects in THRB are the cause of generalized thyroid hormone resistance (GTHR) [MIM:188570, 274300]. GTHR is transmitted as an autosomal dominant trait, but an autosomal recessive form also exists. The disease is characterized by goiter, abnormal mental functions, increased susceptibility to infections, abnormal growth and bone maturation, tachycardia and deafness. Affected individuals may also have attention deficit-hyperactivity disorders (ADHD) and language difficulties. GTHR patients also have high levels of circulating thyroid hormones (T3-T4), with normal or slightly elevated thyroid stimulating hormone (TSH).

Defects in THRB are the cause of selective pituitary thyroid hormone resistance (PRTH) [MIM:145650]; also known as familial hyperthyroidism due to inappropriate thyrotropin secretion. PRTH is a variant form of thyroid hormone resistance and is characterized by clinical hyperthyroidism, with elevated free thyroid hormones, but inappropriately normal serum TSH. Unlike GRTH, where the syndrome usually segregates with a dominant allele, the mode of inheritance in PRTH has not been established.

Sequence similarities

Belongs to the nuclear hormone receptor family. NR1 subfamily. Contains 1 nuclear receptor DNA-binding domain.

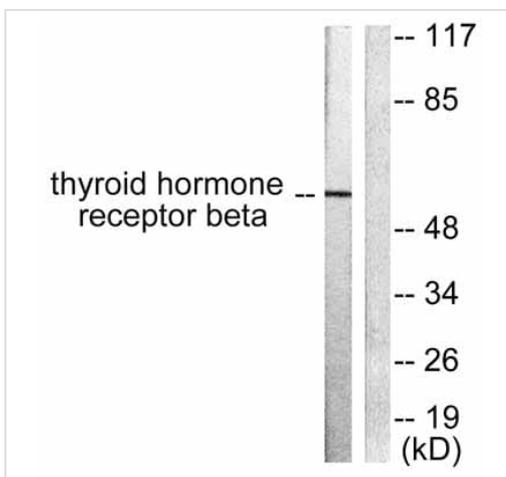
Domain

Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain.

Cellular localization

Nucleus.

Images



All lanes : Anti-Thyroid Hormone Receptor beta antibody (ab53170) at 1/500 dilution

Lane 1 : LoVo cell extracts minus immunising peptide

Lane 2 : LoVo cell extracts plus immunising peptide

Predicted band size: 53 kDa

Western blot - Anti-Thyroid Hormone Receptor beta antibody (ab53170)

Immunocytochemistry/ Immunofluorescence - Anti-Thyroid Hormone Receptor beta antibody (ab53170)

ICC/IF image of ab53170 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab53170, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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