

# Anti-Thyroglobulin antibody [EPR3614(2)] - BSA and Azide free ab248992

Recombinant RabMAb

7 Images

### Overview

<b>Product name</b>	Anti-Thyroglobulin antibody [EPR3614(2)] - BSA and Azide free
<b>Description</b>	Rabbit monoclonal [EPR3614(2)] to Thyroglobulin - BSA and Azide free
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, IHC-P, mIHC
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<b>General notes</b>	<p>ab248992 is the carrier-free version of <a href="#">ab151539</a>.</p> <p>Our <b>carrier-free</b> antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency.</p> <p>This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.</p> <p>Use our <b>conjugation kits</b> for antibody conjugates that are ready-to-use in as little as 20 minutes with &lt;1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.</p> <p>This product is compatible with the Maxpar<sup>®</sup> Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar<sup>®</sup> is a trademark of Fluidigm Canada Inc.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> <p>For more information <a href="#">see here</a>.</p> <p>Our RabMAb<sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a>.</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C. Do Not Freeze.
<b>Storage buffer</b>	pH: 7.2 Constituent: PBS
<b>Carrier free</b>	Yes
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	EPR3614(2)
<b>Isotype</b>	IgG

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab248992 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
<b>WB</b>		Use at an assay dependent concentration. Predicted molecular weight: 305 kDa.
<b>IHC-P</b>		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
<b>mIHC</b>		Use at an assay dependent concentration.

## Target

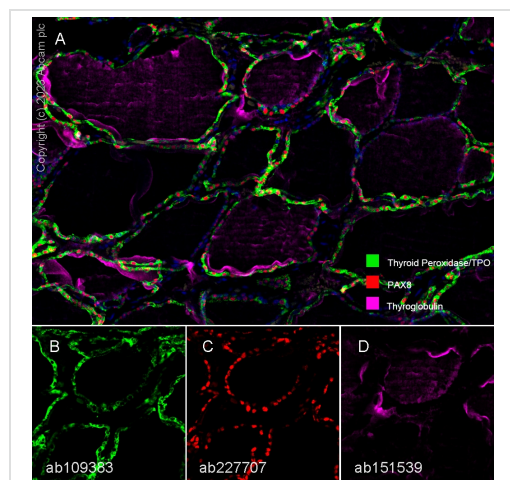
<b>Function</b>	Precursor of the iodinated thyroid hormones thyroxine (T4) and triiodothyronine (T3).
<b>Tissue specificity</b>	Thyroid gland specific.
<b>Involvement in disease</b>	<p>Defects in TG are the cause of congenital hypothyroidism due to dysmorphogenesis type 3 (CHDH3) [MIM:274700]. A disorder due to thyroid dysmorphogenesis, causing large goiters of elastic and soft consistency in the majority of patients. Although the degree of thyroid dysfunction varies considerably among patients with defective thyroglobulin synthesis, patients usually have a relatively high serum free triiodothyronine (T3) concentration with disproportionately low free tetraiodothyronine (T4) level. The maintenance of relatively high free T3 levels prevents profound tissue hypothyroidism except in brain and pituitary, which are dependent on T4 supply, resulting in neurologic and intellectual defects in some cases.</p> <p>Variations in TG are associated with susceptibility to autoimmune thyroid disease type 3 (AITD3) [MIM:608175]. AITDs including Graves disease (GD) and Hashimoto thyroiditis (HT), are among the most common human autoimmune diseases. They are complex diseases, which are caused by an interaction between susceptibility genes and nongenetic factors, such as infection.</p>
<b>Sequence similarities</b>	<p>Belongs to the type-B carboxylesterase/lipase family.</p> <p>Contains 11 thyroglobulin type-1 domains.</p>
<b>Post-translational</b>	Sulfated tyrosines are desulfated during iodination.

## modifications

### Cellular localization

Secreted.

## Images



Multiplex immunohistochemistry - Anti-Thyroglobulin antibody [EPR3614(2)] - BSA and Azide free (ab248992)

Fluorescence multiplex immunohistochemical analysis of Human thyroid gland tissue (Formalin/PFA-fixed paraffin-embedded sections).

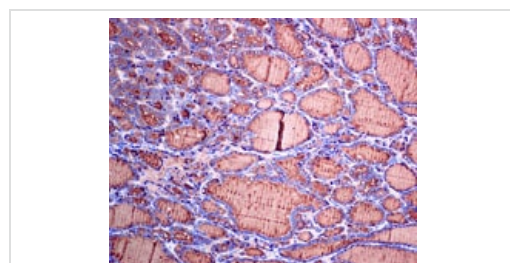
Panel A: merged staining of anti-Thyroglobulin ([ab151539](#), magenta; Opal™690), anti-Thyroid Peroxidase/TPO ([ab109383](#), green; Opal™520) and anti-PAX8 ([ab227707](#), red; Opal™570) on human thyroid gland. Panel B: anti-Thyroid Peroxidase/TPO stained on cytoplasm of follicular epithelial cells. Panel C: anti-PAX8 stained on nucleus of follicular epithelial cells. Panel D: anti-Thyroglobulin stained on colloid. Opal Polymer HRP Ms + Rb was used as a secondary antibody.

The section was incubated in three rounds of staining: in the order of [ab151539](#) at 1/5000 dilution (0.167 µg/ml), [ab109383](#) at 1/1500 dilution (0.072 µg/ml), and [ab227707](#) at 1/200 dilution (5.22 µg/ml) for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope. DAPI (blue) was used as a nuclear counter stain.

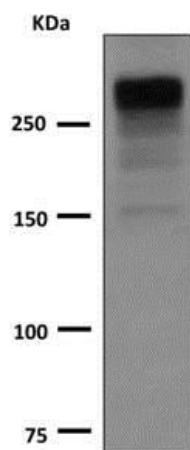
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

This data was developed using [ab151539](#), the same antibody clone in a different buffer formulation



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thyroglobulin antibody [EPR3614(2)] - BSA and Azide free (ab248992)

This data was developed using [ab151539](#), the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin-embedded Human thyroid gland follicular carcinoma tissue labeling Thyroglobulin with [ab151539](#) at 1/250 dilution. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-Thyroglobulin antibody  
[EPR3614(2)] - BSA and Azide free (ab248992)

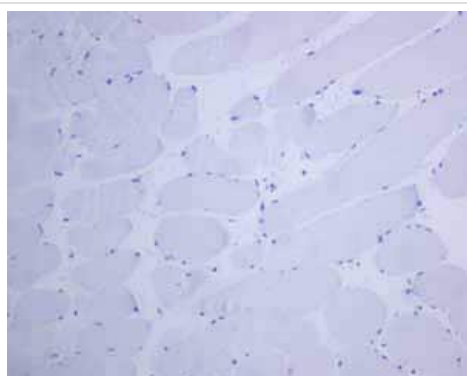
Anti-Thyroglobulin antibody [EPR3614(2)] (**ab151539**) at 1/100000 dilution + Human thyroid tissue lysate at 10 µg

**Secondary**

Goat anti-rabbit HRP conjugated at 1/2000 dilution

**Predicted band size:** 305 kDa

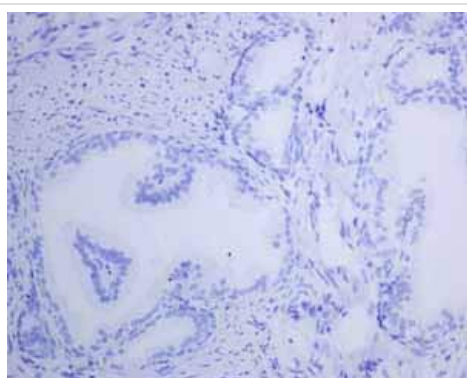
This data was developed using **ab151539**, the same antibody clone in a different buffer formulation.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thyroglobulin antibody  
[EPR3614(2)] - BSA and Azide free (ab248992)

This data was developed using **ab151539**, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin embedded Human Skeletal muscle tissue using **ab151539** showing -ve staining.

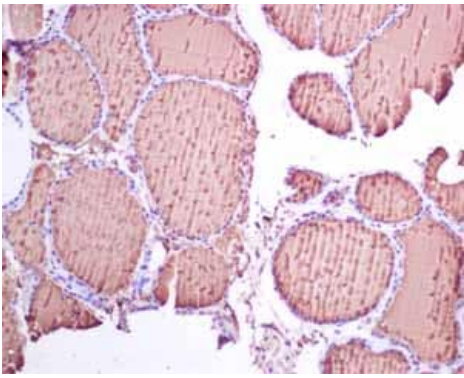
Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thyroglobulin antibody  
[EPR3614(2)] - BSA and Azide free (ab248992)

This data was developed using **ab151539**, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin embedded normal Human prostate tissue using **ab151539** showing -ve staining.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thyroglobulin antibody [EPR3614(2)] - BSA and Azide free (ab248992)

This data was developed using **ab151539**, the same antibody clone in a different buffer formulation. Immunohistochemical analysis of paraffin embedded Human Thyroid gland tissue using **ab151539** showing +ve staining.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

### Why choose a recombinant antibody?



Anti-Thyroglobulin antibody [EPR3614(2)] - BSA and Azide free (ab248992)

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

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