abcam

Product datasheet

Anti-Thyroglobulin antibody [EPR9730] - Low endotoxin, Azide free ab229449

Recombinant   RabMAb

8 Images

Overview

Product name	Anti-Thyroglobulin antibody [EPR9730] - Low endotoxin, Azide free
Description	Rabbit monoclonal [EPR9730] to Thyroglobulin - Low endotoxin, Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, ICC/IF, Flow Cyt
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human Thyroglobulin aa 1000-1100. The exact sequence is proprietary. Database link: P01266
Positive control	Mouse thyroid, rat thyroid, and Human thyroid lysates, Human thyroid gland follicular carcinoma tissue and Human thyroid gland papillary carcinoma tissue, TT cells
General notes	ab229449 is a carrier-free antibody designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes.
	Our Low endotoxin, azide-free formats have low endotoxin level (≤ 1 EU/ml, determined by the LAL assay) and are free from azide, to achieve consistent experimental results in functional assays.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR9730
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab229449** in the following tested applications.
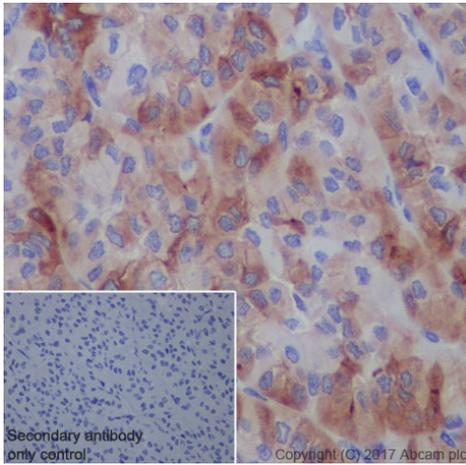
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 294-300 kDa (predicted molecular weight: 305 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
ICC/IF		Use at an assay dependent concentration.
Flow Cyt		Use at an assay dependent concentration. ab199376 - Rabbit monoclonal IgG (Low endotoxin, Azide free), is suitable for use as an isotype control with this antibody.

Target

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Function	Precursor of the iodinated thyroid hormones thyroxine (T4) and triiodothyronine (T3).
Tissue specificity	Thyroid gland specific.
Involvement in disease	Defects in TG are the cause of congenital hypothyroidism due to dyshormonogenesis type 3 (CHDH3) [MIM:274700]. A disorder due to thyroid dyshormonogenesis, 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. 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.
Sequence similarities	Belongs to the type-B carboxylesterase/lipase family. Contains 11 thyroglobulin type-1 domains.
Post-translational modifications	Sulfated tyrosines are desulfated during iodination.
Cellular localization	Secreted.

Images

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thyroglobulin antibody [EPR9730] - Low endotoxin, Azide free (ab229449)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human thyroid carcinoma tissue sections labeling Thyroglobulin with Purified ab156008 at 1:500 dilution (1.36 µg/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). Tissue was counterstained with Hematoxylin. ImmunoHistoProbe one step HRP Polymer (ready to use) secondary antibody was used at 1:0 dilution. PBS instead of the primary antibody was used as the negative control.
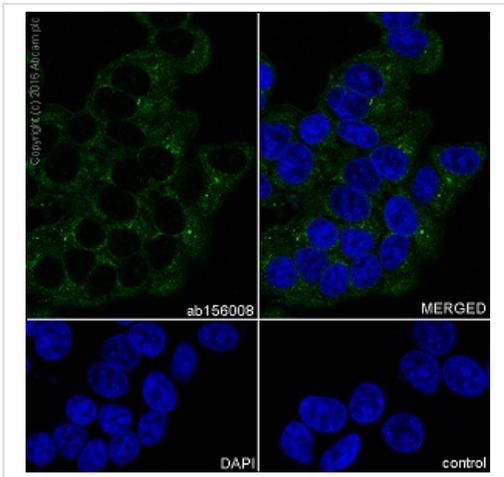
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab156008).
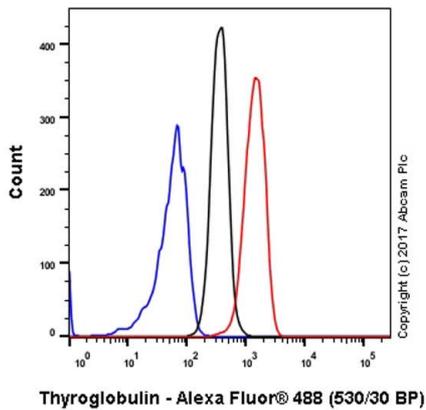
Flow Cytometry - Anti-Thyroglobulin antibody [EPR9730] - Low endotoxin, Azide free (ab229449)

Flow Cytometry analysis of TT (Human thyroid carcinoma epithelial cell) cells labeling Thyroglobulin with purified ab156008 at 1:70 dilution (10 µg/ml) (red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1:2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab156008).

Immunocytochemistry/ Immunofluorescence - Anti-Thyroglobulin antibody [EPR9730] - Low endotoxin, Azide free (ab229449)

Immunocytochemistry/ Immunofluorescence analysis of TT (Human thyroid carcinoma epithelial cell) cells labeling Thyroglobulin with Purified ab156008 at 1:100 dilution. Cells were fixed in 100% Methanol. ab150077 Goat anti rabbit IgG(Alexa Fluor® 488) was used as the secondary antibody at 1:1000 dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab156008).
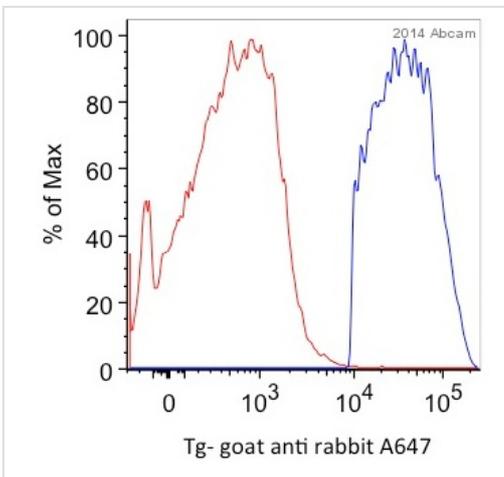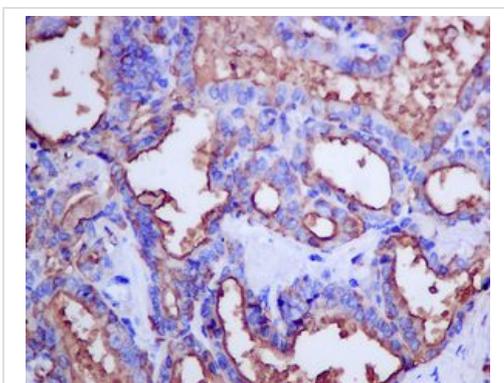

Flow Cytometry - Anti-Thyroglobulin antibody [EPR9730] - Low endotoxin, Azide free (ab229449)

This image is courtesy of an Abreview submitted by Sanjay Gawade.

Unpurified ab156008 staining Thyroglobulin in mouse thyroid cells by Flow Cytometry. Cells were fixed with formaldehyde and permeabilized with permeabilization buffer. The sample was incubated with the primary antibody (1/100 in FACS buffer) for 30 minutes at 24°C. An Alexa Fluor® 647-conjugated goat anti-rabbit IgG (1/2000) was used as the secondary antibody. Gating Strategy: Epithlial cells. Red line shows unlabeled sample, blue line shows labeled sample.
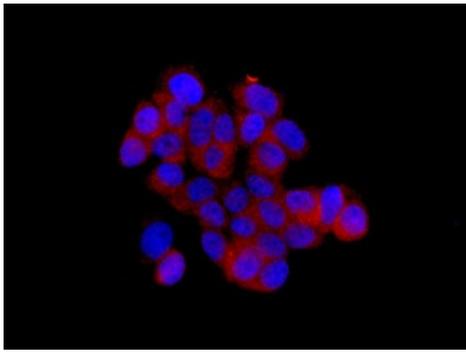
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab156008).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thyroglobulin antibody [EPR9730] - Low endotoxin, Azide free (ab229449)

Immunohistochemical analysis of paraffin embedded Human thyroid gland follicular carcinoma tissue labeling Thyroglobulin with unpurified ab156008 antibody at 1/250.
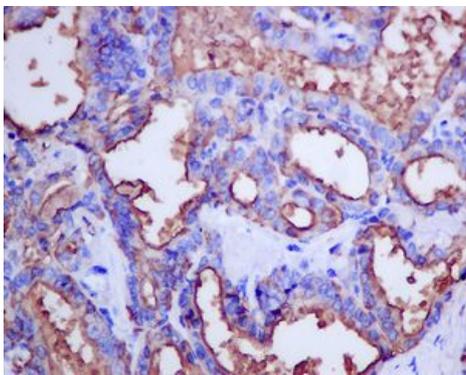
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab156008).

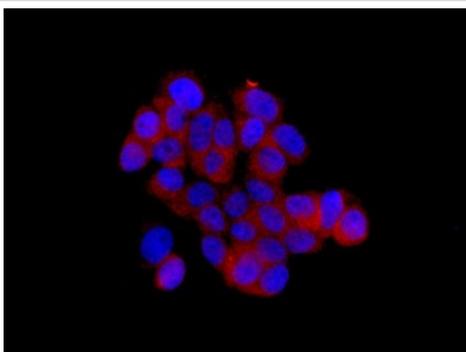Immunofluorescent analysis of TT cells labeling Thyroglobulin with unpurified ab156008 at 1/50.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab156008).

Immunocytochemistry/ Immunofluorescence - Anti-Thyroglobulin antibody [EPR9730] - Low endotoxin, Azide free (ab229449)

This IHC data was generated using the same anti-Thyroglobulin antibody clone, EPR9730, in a different buffer formulation (cat# ab156008).

Immunohistochemical analysis of paraffin embedded Human thyroid gland follicular carcinoma tissue labeling Thyroglobulin with unpurified ab156008 antibody at 1/250.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thyroglobulin antibody [EPR9730] - Low endotoxin, Azide free (ab229449)

This ICC/IF data was generated using the same anti-Thyroglobulin antibody clone, EPR9730, in a different buffer formulation (cat# ab156008).

Immunofluorescent analysis of TT cells labeling Thyroglobulin with unpurified ab156008 at 1/50.

Immunocytochemistry/ Immunofluorescence - Anti-Thyroglobulin antibody [EPR9730] - Low endotoxin, Azide free (ab229449)

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