# abcam

### Product datasheet

## Anti-Thyroid Peroxidase/TPO antibody [EPR5380] ab109383



重组 RabMAb

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#### 概述

产品名称 Anti-Thyroid Peroxidase/TPO抗体[EPR5380]

描述 兔单克隆抗体[EPR5380] to Thyroid Peroxidase/TPO

宿主 Rabbit

经测试应用 适用于: mIHC, WB, IP, IHC-P

种属反应性 与反应: Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

阳性对照 WB: Human thyroid lysate IHC-P: Human thyroid gland tissue IP: Human thyroid cell lysate mIHC:

Human thyroid gland tissue.

常规说明 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with

these species. Please contact us for more information.

#### 性能

形式 Liquid

存放说明 Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.

存储溶液

Preservative: 0.05% Sodium azide

Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue

culture supernatant

纯度 Protein A purified

克隆 单克隆

**克隆编号** EPR5380

**同种型** IgG

#### 应用

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## The Abpromise guarantee Abpromise™承诺保证使用ab109383于以下的经测试应用

"应用说明"部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

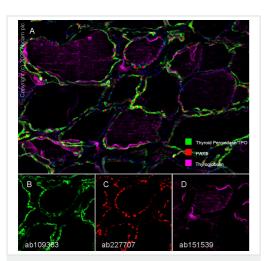
应用	Ab评论	说明
mIHC		1/1500.
WB		1/1000 - 1/10000. Predicted molecular weight: 103 kDa.
IP		1/10 - 1/100.
IHC-P		1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. Heat up to 98 degrees C, below boiling, and then let cool for 10-20 min.

<b>靶</b> 标	
功能	lodination and coupling of the hormonogenic tyrosines in thyroglobulin to yield the thyroid hormones T(3) and T(4).
通路	Hormone biosynthesis; thyroid hormone biosynthesis.
疾病相关	Note=An alternative splicing in the thyroperoxidase mRNA can cause Graves' disease.  Defects in TPO are the cause of congenital hypothyroidism due to dyshormonogenesis type 2A (CHDH2A) [MIM:274500]; also called genetic defect in thyroid hormonogenesis 2A or thyroid hormone organification defect II. CHDH2A is due to defective conversion of accumulated iodide to organically bound iodine. The iodide organification defect can be partial or complete.
序列相似性	Belongs to the peroxidase family. XPO subfamily.  Contains 1 EGF-like domain.  Contains 1 Sushi (CCP/SCR) domain.
翻译后 <b>修</b> 饰	Glycosylated.  Heme is covalently bound through a H(2)O(2)-dependent autocatalytic process. Heme insertion is important for the delivery of protein at the cell surface.  Cleaved in its N-terminal part.

Membrane and Cell surface.

### 图片

细胞定位



Multiplex immunohistochemistry - Anti-Thyroid Peroxidase/TPO antibody [EPR5380] (ab109383)

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

Panel A: merged staining of anti-Thyroglobulin (<u>ab151539</u>, magenta; Opal™690), anti-Thyroid Peroxidase/TPO (ab109383, green; Opal™520) and anti-PAX8 (<u>ab227707</u>, 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.

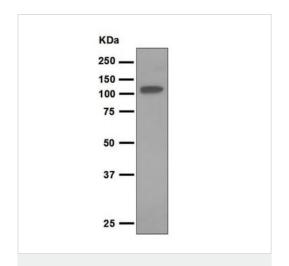
The section was incubated in three rounds of staining: in the order of  $\underline{ab151539}$  at 1/5000 dilution (0.167 µg/ml), ab109383 at 1/1500 dilution (0.072 µg/ml) , and  $\underline{ab227707}$  at 1/200 dilution (5.22 µg/ml) for 30 mins at room temperature. Each round was followed by a separate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

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

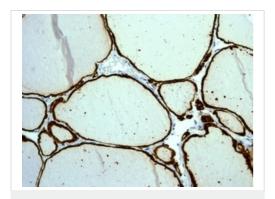
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Anti-Thyroid Peroxidase/TPO antibody [EPR5380] (ab109383) at 1/1000 dilution + Human thyroid lysate at 10  $\mu g$ 

Predicted band size: 103 kDa



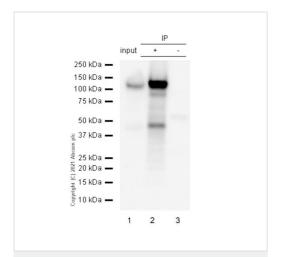
Western blot - Anti-Thyroid Peroxidase/TPO antibody [EPR5380] (ab109383)



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Thyroid Peroxidase/TPO antibody [EPR5380] (ab109383)

ab109383, at a 1/100 dilution, staining Thyroid Peroxidase/TPO in paraffin-embedded Human thyroid gland tissue

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunoprecipitation - Anti-Thyroid Peroxidase/TPO antibody [EPR5380] (ab109383)

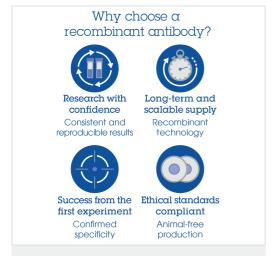
Thyroid Peroxidase/TPO was immunoprecipitated from 0.35 mg Human thyroid whole cell lysate 10  $\mu$ g with 109383 at 1/100 dilution (2 $\mu$ g). VeriBlot for IP Detection Reagent (HRP)(<u>ab131366</u>) was used at 1/5000 dilution.

Lane 1: Human thyroid whole cell lysate 10 µg

Lane 2: ab109383 IP in Human thyroid whole cell lysate

**Lane 3**: Rabbit monoclonal IgG (<u>ab172730</u>) instead of ab109383 in Human thyroid whole cell lysate

Blocking and dilution buffer and concentration: 5% NFDM/TBST.



Anti-Thyroid Peroxidase/TPO antibody [EPR5380] (ab109383)

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