



## Rabbit Anti-Thyroid peroxidase antibody

SL0447R

<b>Product Name:</b>	Thyroid peroxidase
<b>Chinese Name:</b>	甲状腺过氧化物酶抗体
<b>Alias:</b>	MSA; PERT_HUMAN; TDH2A; Thyroid microsomal antigen; Thyroid peroxidase; Thyroperoxidase; TPO; TPX.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,
<b>Applications:</b>	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	101kDa
<b>Cellular localization:</b>	The cell membraneExtracellular matrix
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from rat Thyroid peroxidase:351-450/914<Extracellular>
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	This gene encodes a membrane-bound glycoprotein. The encoded protein acts as an enzyme and plays a central role in thyroid gland function. The protein functions in the iodination of tyrosine residues in thyroglobulin and phenoxy-ester formation between pairs of iodinated tyrosines to generate the thyroid hormones, thyroxine and triiodothyronine. Mutations in this gene are associated with several disorders of thyroid hormonogenesis, including congenital hypothyroidism, congenital goiter, and thyroid

hormone organification defect IIA. Multiple transcript variants encoding distinct isoforms have been identified for this gene, but the full-length nature of some variants has not been determined. [provided by RefSeq, May 2011].

**Function:**

Iodination and coupling of the hormonogenic tyrosines in thyroglobulin to yield the thyroid hormones T(3) and T(4).

**Subunit:**

Interacts with DUOX1, DUOX2 and CYBA.

**Subcellular Location:**

Membrane; Single-pass type I membrane protein.  
Isoform 3: Cell surface.

**Post-translational modifications:**

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.

**DISEASE:**

Note=An alternative splicing in the thyroperoxidase mRNA can cause Graves' disease. Defects in TPO are the cause of thyroid dysmorphogenesis 2A (TDH2A) [MIM:274500]. A disorder due to defective conversion of accumulated iodide to organically bound iodine. The iodide organification defect can be partial or complete.

**Similarity:**

Belongs to the peroxidase family. XPO subfamily.

Contains 1 EGF-like domain.

Contains 1 Sushi (CCP/SCR) domain.

**SWISS:**

P35419

**Gene ID:**

7173

**Database links:**

[Entrez Gene: 7173](#)Human

[Omir: 606765](#)Human

[SwissProt: P07202](#)Human

[Unigene: 467554](#)Human

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

甲状腺过氧化物酶TPO是一种含铁卟啉的血红蛋白类物质, 位于甲状腺epithelial cells的顶端The cell membrane上。

TPO主要的生物学作用是使碘活化, 酪氨酸碘化和促进碘化酪氨酸的耦联, 在甲状腺激素合成过程中起着关键作用-是甲状腺激素合成过程中的关键酶.

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