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Rabbit Anti-Thyroid peroxidase antibody

SL10406R

Product Name:	Thyroid peroxidase
Chinese Name:	甲状腺过氧化物酶抗体
Alias:	MSA; PERT_HUMAN; TDH2A; Thyroid microsomal antigen; Thyroid peroxidase; Thyroperoxidase; TPO; TPX.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	101kDa
Cellular localization:	The cell membraneExtracellular matrix
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Thyroid peroxidase:111-210/933<Extracellular>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	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.
PubMed:	PubMed
Product Detail:	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 dyshormonogenesis 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:
P07202

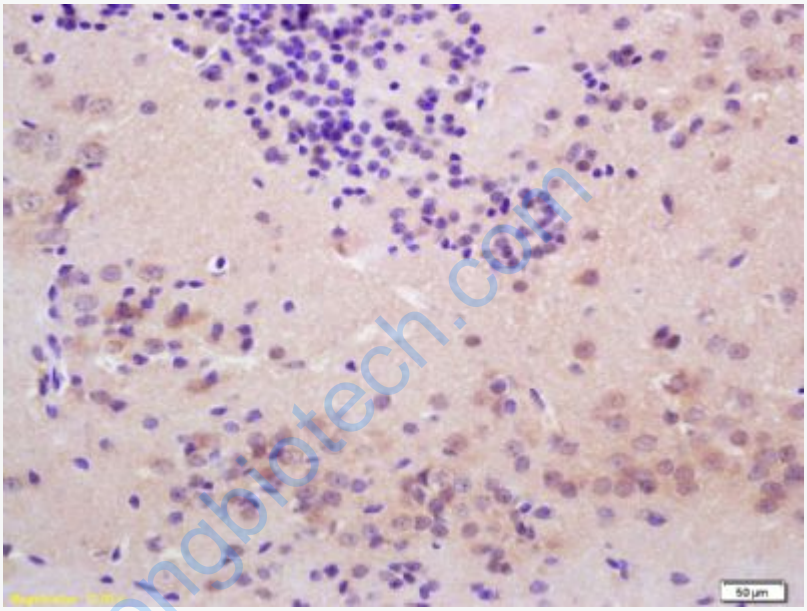
Gene ID:
7173

Database links:

Entrez Gene: 7173Human

Omim: 606765Human

SwissProt: P07202Human

	Unigene: 467554Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Picture:	 Tissue/cell: Rat brain; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-Thyroid peroxidase Polyclonal Antibody, Unconjugated(SL10406R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining