



SUNLONG

SunLong Biotech Co.,LTD

Tel: 0086-571-56623320 Fax:0086-571-56623318

E-mail:sales@sunlongbiotech.com

www.sunlongbiotech.com

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.
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, Rat, (predicted: Mouse,) WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Applications	
Theoretical molecular weight	101kDa
Cellular localization	The cell membrane Extracellular matrix
Form	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
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
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 H₂O₂-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:

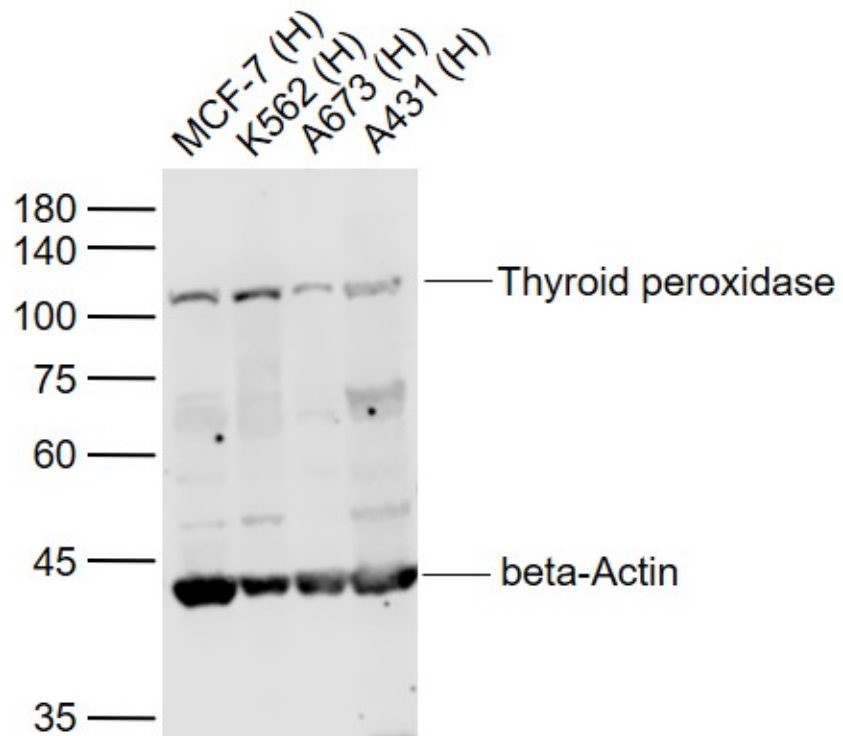
[Entrez Gene: 7173](#) Human

[Omim: 606765](#) Human

[SwissProt: P07202](#) Human

[Unigene: 467554](#) Human

**Product
Picture**



Sample:

Lane 1: MCF-7 (Human) Cell Lysate at 30 ug

Lane 2: K562 (Human) Cell Lysate at 30 ug

Lane 3: A673 (Human) Cell Lysate at 30 ug

Lane 4: A431 (Human) Cell Lysate at 30 ug

Primary:

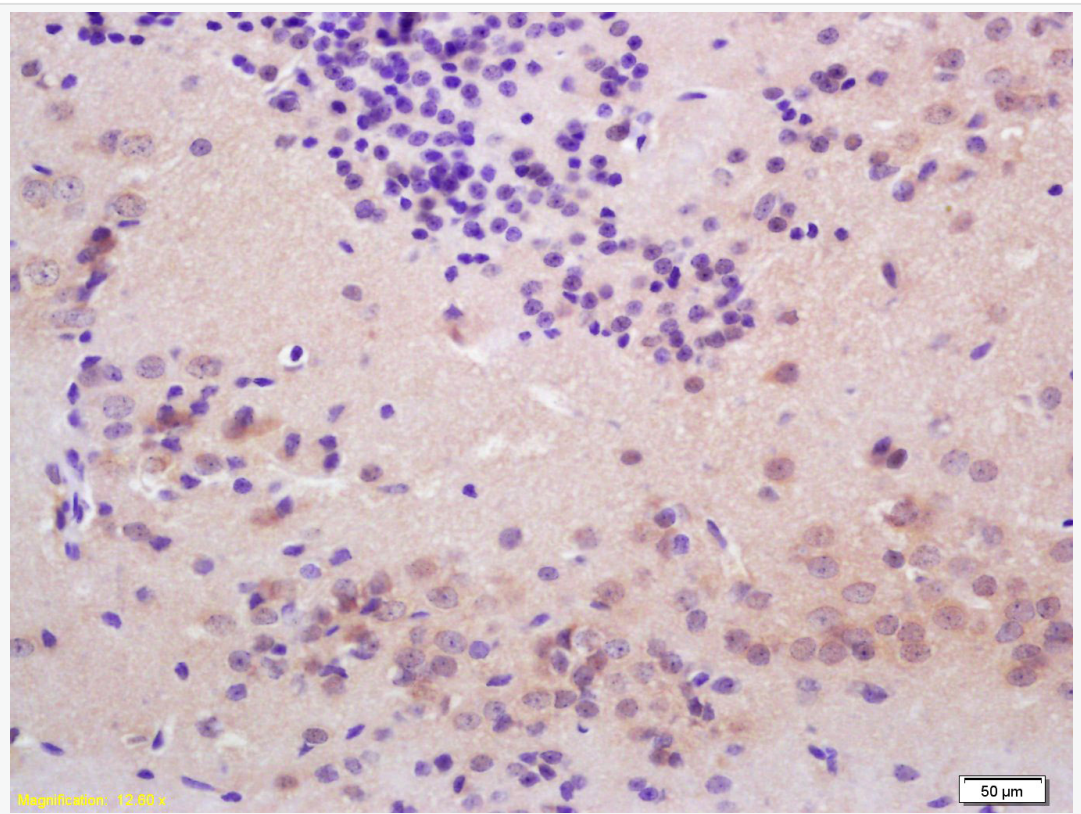
Anti- Thyroid peroxidase (SL10406R) at 1/1000 dilution

Anti-beta-Actin (SL0061R) at 1/2000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 105-110 kD

Observed band size: 105 kD



Tissue/cell: Rat brain; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, 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°C for 20 min;



SunLong Biotech Co.,LTD

Tel: 0086-571-56623320 Fax:0086-571-56623318

E-mail:sales@sunlongbiotech.com

www.sunlongbiotech.com

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