Immunotag™ Thyroid Peroxidase(TPO) (ABT-TPO) mouse mAb

Antibody Specification

Catalog No.	ITM6102
Product Description	Immunotag™ Thyroid Peroxidase(TPO) (ABT-TPO) mouse mAb
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	TPO (2G2)
Clonality	Monoclonal
Storage/Stability	-20°C/1 year
Application	IHC-p
Recommended Dilution	IHC-p 1:100-500
Concentration	1 mg/ml
Reactive Species	Human
Host Species	Mouse
Immunogen	Synthesized peptide derived from human Thyroid Peroxidase(TPO)
Specificity	This antibody detects endogenous levels of human Thyroid Peroxidase(TPO)
Purification	The antibody was affinity-purified from mouse ascites by affinity-chromatography using specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	TPO
Accession No.	P07202
Alternate Names	Thyroid peroxidase (TPO) (EC 1.11.1.8)

Antibody Specification

Description	thyroid peroxidase(TPO) Homo sapiens 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],
Cell Pathway/ Category	Tyrosine metabolism,Cytokine-cytokine receptor interaction,Jak_STAT,Hematopoietic cell lineage,Autoimmune thyroid disease,
Protein Expression	Glandular pool- thyroid,Spleen,Thyroid,
Subcellular Localization	Cytoplasmic
Protein Function	Additional isoforms seem to exist,catalytic activity:2 iodide + H(2)O(2) + 2 H(+) = 2 iodine + 2 H(2)O.,cofactor:Binds 1 calcium ion per heterodimer.,cofactor:Binds 1 heme B (iron-protoporphyrin IX) group covalently per heterodimer.,disease:An alternative splicing in the thyroperoxidase mRNA can cause Graves' disease.,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.,function:Iodination and coupling of the hormonogenic tyrosines in thyroglobulin to yield the thyroid hormones T(3) and T(4).,online information:Thyroid peroxidase entry,pathway:Hormone biosynthesis; thyroid hormone biosynthesis.,PTM:Cleaved in its N-terminal part.,PTM:Glycosylated.,PTM: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.,similarity:Belongs to the peroxidase family. XPO subfamily.,similarity:Contains 1 EGF-like domain.,similarity:Contains 1 Sushi (CCP/SCR) domain.,subunit:Interacts with DUOX1, DUOX2 and CYBA.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.