Mouse anti-Human TPO (Thyroid Peroxidase) Monoclonal Antibody | anti-TPO antibody

TPO (Thyroid Peroxidase) (Thyroid Marker)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA215467	**Mouse**	**Human**	**Immunohistochemistry**

PRODUCT SYNONYMS

TPO (Thyroid Peroxidase); Monoclonal Antibody; TPO (Thyroid Peroxidase) (Thyroid Marker); MSA; TDH2A; Thyroid microsomal antigen; Thyroid peroxidase; Thyroperoxidase; TPO; TPX; anti-TPO antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1, kappa
Clone Number	TPO/3695
Specificity	Thyroperoxidase (TPO) is a 933 amino acid, type I transmembrane glycoprotein that plays a key role in thyroid gland function and autoimmunity. It is present as a dimer on the apical surface of thyroid follicular cells. TPO 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. Malignant thyroid tumors exhibit an anomaly in TPO resulting in lower affinity for anti-TPO. This antibody may aid in the differentiation between benign and malignant thyroid tumors.
Purity/Purification	Purified Ab with BSA and Azide at 200ug/ml or Purified Ab with BSA and Azide at 200ug/ml or Purified Ab WITHOUT BSA and Azide at 1.0mg/ml
Form/Format	200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.
Sequence Length	933
Applicable Applications for anti-TPO antibody	IHC (Immunohistochemistry)
Immunogen	Recombinant fragment of Human TPO (around aa 685-804) (Exact sequence is proprietary)
Cellular Localization	Cytoplasmic and Cell Surface
Hu-chromosome Location	2p25.3
Positive Control	Thyroid Carcinoma
Preparation and Storage	Antibody with azide: store at 2 to 8 degree C. Antibody without azide: store at -20 to -80 degree C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

IMAGES

Application Data
Analysis of Protein Array containing more than 19,000 full-length human proteins using Thyroid Peroxidase Mouse Monoclonal Antibody (TPO/3695). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProtTM array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProtTM are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.

SDS-PAGE
SDS-PAGE Analysis Thyroid Peroxidase Mouse Monoclonal Antibody (TPO/3695). Confirmation of Purity and Integrity of Antibody.

IHC (Immunohiostchemistry)
Formalin-fixed, paraffin-embedded human Thyroid Carcinoma stained with Thyroid Peroxidase Mouse Monoclonal Antibody (TPO/3695).

IHC (Immunohistochemistry)
Formalin-fixed, paraffin-embedded human Thyroid Carcinoma stained with Thyroid Peroxidase Mouse Monoclonal Antibody (TPO/3695).

ADDITIONAL INFORMATION

References	Fayadat, L., et al. 1998. Human Thyroperoxidase is largely retained and rapidly degraded in the endoplasmic reticulum. Its N-glycans are required for folding and intracellular trafficking. Endocrinology 139: 4277-4285.

NCBI AND UNIPROT INFORMATION

NCBI GI #	28558982
NCBI GeneID	7173
NCBI Accession #	NP_000538.3
NCBI GenBank Nucleotide #	NP_000538.3
UniProt Accession #	P07202
Molecular Weight	100kDa
NCBI Official Full Name	thyroid peroxidase isoform a
NCBI Official Synonym Full Names	thyroid peroxidase
NCBI Official Symbol	TPO
NCBI Official Synonym Symbols	MSA; TPX; TDH2A
NCBI Protein Information	thyroid peroxidase
UniProt Protein Name	Thyroid peroxidase
UniProt Gene Name	**TPO**
UniProt Synonym Gene Names	TPO
UniProt Entry Name	PERT_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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