

## Anti-Thyroid Peroxidase Antibody [TPO/3695] (A250202)

### Specifications:

Name:	Anti-Thyroid Peroxidase Antibody [TPO/3695]
Description:	Mouse monoclonal [TPO/3695] antibody to Thyroid Peroxidase.
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.
Applications:	IHC-P
Recommended Dilutions:	IHC-P: 1-2 µg/ml
Reactivity:	Human
Immunogen:	Recombinant fragment, around amino acids 685-804, of human TPO protein. The exact sequence is proprietary.
Host:	Mouse
Clonality:	Monoclonal
Clone ID:	TPO/3695
Isotype:	IgG1
Light Chains:	kappa
Conjugate:	Unconjugated
Purification:	Protein A/G chromatography.
Concentration:	200 µg/ml
Product Form:	Liquid
Formulation:	Supplied in 10mM Phosphate Buffered Saline with 0.05% BSA and 0.05% Sodium Azide.
Storage:	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
General Notes:	This monoclonal antibody is also available in a different formulation without BSA and Sodium Azide - Anti-Thyroid Peroxidase Antibody [TPO/3695] - BSA and Azide free (A253382).

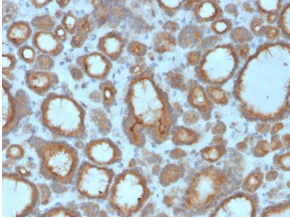
## Anti-Thyroid Peroxidase Antibody [TPO/3695] (A250202)

### Specifications continued:

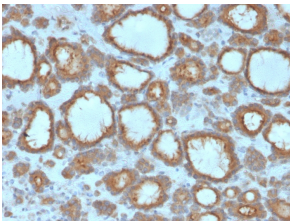
Disclaimer:

This product is for research use only. It is not intended for diagnostic or therapeutic use.

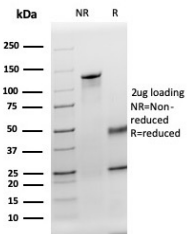
### Images:



Immunohistochemical analysis of formalin-fixed, paraffin-embedded human thyroid carcinoma using Anti-Thyroid Peroxidase Antibody [TPO/3695].



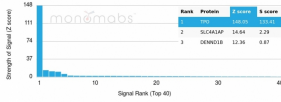
Immunohistochemical analysis of formalin-fixed, paraffin-embedded human thyroid carcinoma using Anti-Thyroid Peroxidase Antibody [TPO/3695].



SDS-PAGE analysis of Anti-Thyroid Peroxidase Antibody [TPO/3695] under non-reduced and reduced conditions; showing intact IgG and intact heavy and light chains, respectively. SDS-PAGE analysis confirms the integrity and purity of the antibody.

## Anti-Thyroid Peroxidase Antibody [TPO/3695] (A250202)

Images continued:



Analysis of protein array containing more than 19,000 full-length human proteins using Anti-Thyroid Peroxidase Antibody [TPO/3695]. Z-Score 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 HuProt™ 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 HuProt™ 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 be 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.