

**Mouse Anti-TPO/Thyroid Peroxidase [MD118R]: RM0189, RM0189RTU7**

**Intended Use:** For Research Use Only

**Description:** Thyroid Peroxidase (TPO) is a membrane-bound protein, catalyzing iodide oxidation, iodination of tyrosine residues and generation of triiodothyronine and thyroxine. It is first synthesized within the endoplasmic reticulum (ER), where it can be readily detected. After folding to the native state within the ER, intracellular transport of TPO to the cell surface occurs via the Golgi complex, a compartment typically associated with N-glycan processing of many cell surface glycoproteins. TPO labels normal thyroid epithelial cells and thyroid tumor cells. The expression level in thyroid carcinomas is lower than that of normal and benign thyroid tumors.

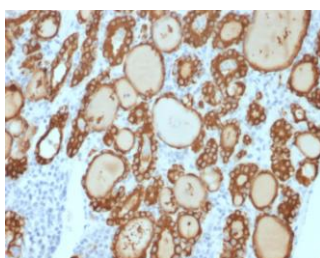
**Specifications**

Clone: MD118R  
 Source: Rabbit  
 Isotype: IgG  
 Reactivity: Human  
 Immunogen: Recombinant fragment of human TPO aa 685-804  
 Localization: Cytoplasm  
 Formulation: Antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN<sub>3</sub>)  
 Storage: Store at 2°- 8°C  
 Applications: IHC  
 Package:

Description	Catalog No.	Size
TPO/Thyroid Peroxidase Concentrated	RM0189	1 ml
TPO/Thyroid Peroxidase Prediluted	RM0189RTU7	7 ml

**IHC Procedure**

Positive Control Tissue: Thyroid, thyroid cancer  
 Concentrated Dilution: 50-200  
 Pretreatment: Tris EDTA pH9.0, 15 minutes using Pressure Cooker, or 30-60 minutes using water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual  
 \* Result should be confirmed by an established diagnostic procedure.



FFPE human thyroid carcinoma stained with anti-TPO using DAB

**References:**

1. Estrogen and thyroid cancer is a stem affair: A preliminary study. Zane M, et al. *Biomed Pharmacother* 85:399-411, 2017.
2. Expression of thyrotropin receptor, thyroglobulin, sodium-iodide symporter, and thyroperoxidase by fibrocytes depends on AIRE. Fernando R, et al. *Clin Endocrinol Metab* 99:E1236-44, 2014.
3. Muscle cells enhance resistance to pro-inflammatory cytokine-induced cartilage destruction. Cairns DM, et al. *Biochem Biophys Res Commun* 392:22-8, 2010.
4. The role of muscle cells in regulating cartilage matrix production. Cairns DM, et al. *J Orthop Res* 28:529-36, 2010.

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Rev. B