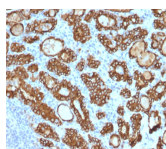


# TPO Monoclonal Mouse Antibody (TPO/1922)



## Product Description

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.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

**Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

**Catalog number key for antibody number 1922, Anti-TPO (TPO/1922)**

## Product attributes

|                                       |   |
|---------------------------------------|---|
| Antibody number                       | #1922   |
| Antibody reactivity (target)          | TPO   |
| Antibody type                         | Primary   |
| Host species                          | Mouse   |
| Clonality                             | Monoclonal  |
| Clone                                 | TPO/1922  |
| Isotype                               | IgG1, kappa   |
| Molecular weight                      | 100 kDa   |
| Synonyms                              | MSA; TDH2A; Thyroid microsomal antigen; Thyroid peroxidase; Thyroperoxidase; TPO; TPX   |
| Human gene symbol                     | TPO   |
| Entrez gene ID                        | 7173  |
| SwissProt                             | P07202  |
| Unigene                               | 467554  |
| Immunogen                             | Recombinant fragment of human TPO (around aa 685-804) (Exact sequence is proprietary)   |
| Verified antibody applications        | IHC (FFPE) (verified)   |
| Antibody target cellular localization | Plasma membrane   |
| Species reactivity                    | Human   |
| Positive control                      | Thyroid Carcinoma   |
| Shipping condition                    | Room temperature  |
| Storage Conditions                    | Store at 2 to 8 °C. Protect fluorescent conjugates from light. Note: store BSA-free antibodies at -10 to -35 °C   |
| Shelf life                            | Guaranteed for at least 24 months from date of receipt when stored as recommended   |
| Regulatory status                     | For research use only (RUO)   |
| Antibody/conjugate formulation        | Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide |
| Validated in protein array            | Monospecific  |
| Antibody research areas               | Endocrinology   |
| Product origin                        | Product may contain either bovine serum albumin (BSA) from bovine serum ( <i>Bos taurus</i> ), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.          |
| Cell/tissue expression                | Thyroid   |
| Tumor expression                      | Thyroid cancer  |

| Antibody # prefix | Conjugation        | Ex/Em (nm) | Laser line | Detection channel        | Dye Features                     |
|-------------------|--------------------|------------|------------|--------------------------|----------------------------------|
| BNC04             | CF®405S            | 404/431    | 405        | DAPI (microscopy), AF405 | <a href="#">CF®405S Features</a> |
| BNC88             | CF®488A            | 490/515    | 488        | GFP, FITC                | <a href="#">CF®488A Features</a> |
| BNC68             | CF®568             | 562/583    | 532, 561   | RFP, TRITC               | <a href="#">CF®568 Features</a>  |
| BNC94             | CF®594             | 593/614    | 561        | Texas Red®               | <a href="#">CF®594 Features</a>  |
| BNC40             | CF®640R            | 642/662    | 633-640    | Cy®5                     | <a href="#">CF®640R Features</a> |
| BNC47             | CF®647             | 650/665    | 633-640    | Cy®5                     | <a href="#">CF®647 Features</a>  |
| BNC74             | CF®740             | 742/767    | 633-685    | 775/50                   | <a href="#">CF®740 Features</a>  |
| BNCB              | Biotin             | N/A        | N/A        | N/A                      |                                  |
| BNUB              | Purified           | N/A        | N/A        | N/A                      |                                  |
| BNUM              | Purified, BSA-free | N/A        | N/A        | N/A                      |                                  |

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Product link: <https://biotium.com/product/tpo-monoclonal-mouse-antibody-tpo-1922/>