

# Product Datasheet

## Thyroid Peroxidase Antibody (TPO/1922) NBP2-79789-100ug

Unit Size: 100 ug

Store at 4C.

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**NBP2-79789-100ug****Thyroid Peroxidase Antibody (TPO/1922)**

| <b>Product Information</b>     |                          |
|--------------------------------|--------------------------|
| <b>Unit Size</b>               | 100 ug                   |
| <b>Concentration</b>           | 0.2 mg/ml                |
| <b>Storage</b>                 | Store at 4C.             |
| <b>Clonality</b>               | Monoclonal               |
| <b>Clone</b>                   | TPO/1922                 |
| <b>Preservative</b>            | 0.05% Sodium Azide       |
| <b>Isotype</b>                 | IgG1 Kappa               |
| <b>Purity</b>                  | Protein A or G purified  |
| <b>Buffer</b>                  | 10 mM PBS with 0.05% BSA |
| <b>Target Molecular Weight</b> | 100 kDa                  |

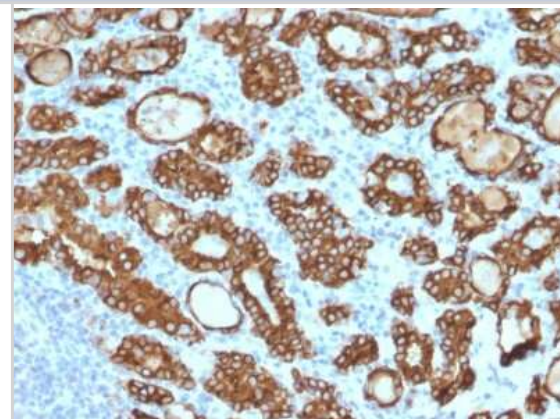
| <b>Product Description</b>     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b>             | 200ug/ml of antibody purified from Bioreactor Concentrate by Protein A or G. Prepared in 10 mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0 mg/ml. (NBP2-79923)<br><br>Antibody with azide - store at 2 to 8C. Antibody without azide - store at -20 to -80C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Host</b>                    | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Gene ID</b>                 | 7173                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Gene Symbol</b>             | TPO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Species</b>                 | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Marker</b>                  | Thyroid Marker                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Specificity/Sensitivity</b> | 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. |
| <b>Immunogen</b>               | Recombinant fragment of human Thyroid Peroxidase (around aa 685-804) (Exact sequence is proprietary) (Uniprot: P07202)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| <b>Product Application Details</b> |                                                                                                                                                                                                                                                                                                             |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Applications</b>                | Immunohistochemistry, Immunohistochemistry-Paraffin, Protein Array                                                                                                                                                                                                                                          |
| <b>Recommended Dilutions</b>       | Immunohistochemistry 1-2 ug/ml, Immunohistochemistry-Paraffin 1-2 ug/ml, Protein Array                                                                                                                                                                                                                      |
| <b>Application Notes</b>           | Immunohistochemistry (Formalin-fixed): 1-2ug/ml for 30 minutes at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95C followed by cooling at RT for 20 minutes. Optimal dilution for a specific application should be determined. |

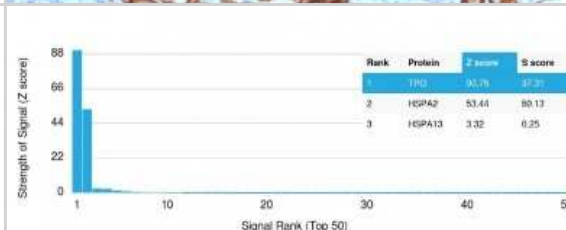


## Images

Immunohistochemistry-Paraffin: Thyroid Peroxidase Antibody (TPO/1922) [NBP2-79789] - Formalin-fixed, paraffin-embedded human Thyroid Carcinoma stained with Thyroid Peroxidase Antibody (TPO/1922).



Protein Array: Thyroid Peroxidase Antibody (TPO/1922) [NBP2-79789] - Analysis of Protein Array containing >19,000 full-length human proteins using Thyroid Peroxidase Antibody (TPO/1922) Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (Monoclonal Antibody) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt(TM) 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(TM) 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 Monoclonal Antibody to its intended target. A Monoclonal Antibody is considered to specific to its intended target, if the Monoclonal Antibody has an S-score of at least 2.5





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### **Products Related to NBP2-79789-100ug**

|                    |                                                           |
|--------------------|-----------------------------------------------------------|
| HAF007             | Goat anti-Mouse IgG Secondary Antibody [HRP]              |
| NB720-B            | Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]   |
| NBP1-43319-0.5mg   | Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)             |
| H00007173-Q01-10ug | Recombinant Human Thyroid Peroxidase GST (N-Term) Protein |

### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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