Human Thyroglobulin Antibody
Monoclonal Mouse IgG, Clone # 904802
Catalog Number: MAB8306

**DESCRIPTION**

**Species Reactivity**  
Human

**Specificity**  
Detects human Thyroglobulin in direct ELISAs.

**Source**  
Monoclonal Mouse IgG, Clone # 904802

**Purification**  
Protein A or G purified from hybridoma culture supernatant

**Immunogen**  
Chinese hamster ovary cell line CHO-derived recombinant human Thyroglobulin Met1-Lys2768  
Accession # P01266

**Formulation**  
Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

*Small pack size (SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

<table>
<thead>
<tr>
<th>Recommended Concentration</th>
<th>Sample</th>
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<tbody>
<tr>
<td>Western Blot</td>
<td>1 μg/mL</td>
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<tr>
<td>Immunohistochemistry</td>
<td>8-25 μg/mL</td>
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**DATA**

**Western Blot**  
Detection of Human Thyroglobulin by Western Blot. Western blot shows lysates of human thyroid tissue. PVDF membrane was probed with 1 μg/mL of Mouse Anti-Human Thyroglobulin Monoclonal Antibody (Catalog # MAB8306) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Thyroglobulin at approximately 300 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Immunohistochemistry**  
Thyroglobulin in Human Thyroid Cancer Tissue. Thyroglobulin was detected in immersion fixed paraffin-embedded sections of human thyroid cancer tissue using Mouse Anti-Human Thyroglobulin Monoclonal Antibody (Catalog # MAB8306) at 15 μg/mL overnight at 4 °C. Tissue was stained using the Anti-Rabbit HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS005) and counterstained with hematoxylin (blue). Specific staining was localized to epithelial cells. View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

**PREPARATION AND STORAGE**

**Reconstitution**  
Reconstitute at 0.5 mg/mL in sterile PBS.

**Shipping**  
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.  
*Small pack size (SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C.

**Stability & Storage**  
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.  
- 12 months from date of receipt, -20 to -70 °C as supplied.  
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.  
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

**BACKGROUND**

Human Thyroglobulin (Tg) gene is localized at position 8q242-8q243. The gene covers a genome area of at least 300 000 bp and contains at least 37 exons. Thyroglobulin (Tg) is a dimeric 660 kDa glycoprotein produced by follicular cells (thyrocytes) in thyroid gland and stored in the follicular colloid of the gland. Tg is heterogenic due to post-translational modifications, such as iodination, glycosylation, sulfation, phosphorylation and it is highly sensitivity to proteolysis. Acting as a substrate, Tg is used for the synthesis of thyroid hormones thyroxine (T4) and triiodothyronine (T3). Tg level can serve as a tumor marker of papillary and follicular thyroid cancer and elevated levels of anti-Tg antibodies in blood can be indicative of Graves disease.