

## Thyroglobulin; Clone 2H11

| Catalog Number | Format         | Volume |
|----------------|----------------|--------|
| A00108-0002    | (Ready-To-Use) | 2 ml   |
| A00108-0007    | (Ready-To-Use) | 7 ml   |
| A00108-0025    | (Ready-To-Use) | 25 ml  |
| A00108-C       | (Concentrate)  | 1 ml   |

### Intended Use

For In-Vitro Diagnostic Use. This antibody is intended for the qualitative visualization of the anatomical elements listed in the Specificity section. It is intended to be used within an Immunohistochemistry (IHC) procedure on formalin-fixed paraffin-embedded (FFPE) human tissue followed by visualization by light microscopy.

### Description

**Titer/Working Dilution:** Ready-to-Use: No further dilution required.  
Concentrate: Suggested dilution is 1:100-200

**Species:** Mouse  
**Immunogen:** Human thyroid follicular cells were used as immunogen to generate the thyroglobulin antibody.

**Clone:** 2H11  
**Isotype:** IgG1 / Kappa  
**Mol. Wt. of Antigen:** 52 kDa  
**Format:** Ready-To-Use antibody has been pre-titered and quality controlled to work on formalin-fixed paraffin-embedded as well as acetone fixed cryostat tissue sections. No further titration is required.

Concentrate antibody is provided in a phosphate buffered saline containing 1% BSA.

**Specificity:** Thyroglobulin is a 660 kDa dimeric preprotein with multiple glycosylation sites is produced by and processed within the thyroid gland to produce the hormone thyroxine and triiodothyronine. Prior to forming dimers, thyroglobulin monomers undergo conformation maturation in the endoplasmic reticulum. Thyroglobulin dimerization as well as transport of thyroglobulin to the Golgi complex is calcium dependent. Thyroglobulin defects resulting from defective dimer formation and export to the Golgi is thought to cause some types of goiter. Antibody against thyroglobulin may be produced by individuals with other diseases arising from the gland such as Hashimoto's or Graves disease. Hence the presence of thyroglobulin autoantibodies can help to identify disease.

Antibody to thyroglobulin has been shown to be useful for the identification of papillary and follicular thyroid carcinoma; thyroglobulin antibody positive lesions are of thyroidal origin. Carcinomas of nonthyroidal origin do not express thyroglobulin and hence are thyroglobulin antibody negative. It is important to note though that not every type of thyroidal lesion is thyroglobulin antibody positive, a number of forms are negative. Hence a negative result does not necessarily rule out that a given lesion or metastasis originated from the thyroid gland.

**Species Reactivity:** Human. Others not known.

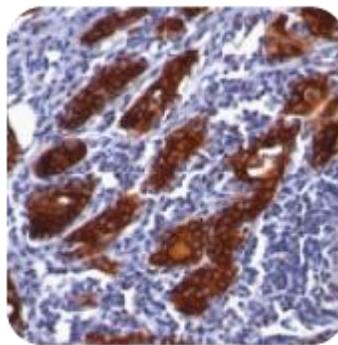
**Cellular Localization:** Cytoplasmic.

**Microbiological State:** Nonsterile

### Materials and Reagents Required but not Provided

- Control tissue and reagents
- Xylene, graded alcohols, and deionized/distilled water
- Antibody Diluent.
- IHC detection system. Suggested: ScyTek Cat# ABZ125 "CRF Anti-Polyvalent HRP Polymer" and ScyTek Cat# ACV500 "DAB Chromogen/Substrate Kit (High Contrast)".
- Wash buffer for rinses (ScyTek Cat# TBT500)
- HIER Retrieval Solution
- Hematoxylin counterstain and bluing reagent (ScyTek Cat# HMM500 and BRT500)
- Mounting medium and coverslips

**Note:** ScyTek Laboratories has a wide range of IHC reagents and ancillaries that can be found at [scytek.com](http://scytek.com).



### Procedure

1. **Tissue Section Pretreatment (Highly Recommended):** Staining of formalin fixed paraffin embedded tissue sections is significantly enhanced by pretreatment with Tis-EDTA HIER Solution (10x) pH 9.0 (ScyTek catalog# TES500) or Citrate Plus (10x) HIER Solution (ScyTek catalog# CPL500)

2. **Primary Antibody Incubation Time:** We suggest an incubation period of 30 minutes at room temperature. However, depending upon the fixation conditions and the staining system employed, optimal incubation should be determined by the user.

3. **Visualization:** For maximum staining intensity we recommend the "UltraTek HRP Anti-Polyvalent Lab Pack" (ScyTek catalog# UHP125, see IFU for instructions) combined with the "DAB Chromogen/Substrate Bulk Pack (High Contrast)" (ScyTek catalog# ACV500, see IFU for instructions).

### Storage and Stability

Do not Freeze. Store at 2-8°C. Return to 2-8° immediately after use. Do not use after expiration date printed on label. Verify visually that antibody has not been contaminated before use. Do not use if reagent becomes cloudy or precipitates.

### Limitations

Immunohistochemistry is a complex technique involving both histological and immunological detection methods. Tissue processing and handling prior to immunostaining can cause inconsistent results. Variations in fixation and embedding or the inherent nature of the tissue specimen may cause variations in results. Endogenous peroxidase activity or pseudoperoxidase activity in erythrocytes and endogenous biotin may cause non-specific staining depending on detection system used. This data sheet's recommendations and procedures were validated using ScyTek IHC reagents and may not be suitable for other detection systems.

Storage: 2° C  8° C

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### Precautions

1. Contains Sodium Azide as a preservative (0.09% w/v), do not ingest. Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. This product contains no hazardous material at a reportable concentration according to U.S. 29 CFR 1910.1200, OSHA Hazardous Communication Standard and EC Directive 91/155/EC.
2. Do not pipette by mouth.
3. Avoid contact of reagents and specimens with skin and mucous membranes.
4. Avoid microbial contamination of reagents or increased nonspecific staining may occur.
5. The user must validate any procedures and recommendations that differ from this data sheet.
6. The SDS may be found at [scytex.com](http://scytex.com)

### References

1. He XX, VP Antao, D Basila. Blood 79:2296-2302 (1992).
2. Lanza F, L Healy, DR Sutherland. Journal of Biol Reg Homeost Agents 15:1-13 (2001).

### Warranty

No products or "Instructions For Use (IFU)" are to be construed as a recommendation for use in violation of any patents. We make no representations, warranties or assurances as to the accuracy or completeness of information provided on our IFU or website. Our warranty is limited to the actual price paid for the product. ScyTek Laboratories, Inc. is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

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