

**Thyroglobulin (Thyroidal Cell Marker) Antibody - With BSA and Azide**  
**Mouse Monoclonal Antibody [Clone SPM221 ]**  
**Catalog # AH10753****Specification****Thyroglobulin (Thyroidal Cell Marker) Antibody - With BSA and Azide - Product Information**

Application	IHC-P, FC
Primary Accession	<a href="#">P01266</a>
Other Accession	<a href="#">7038</a> , <a href="#">654591</a>
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse / IgG1, kappa
Calculated MW	660kDa (Dimeric Form) KDa

**Thyroglobulin (Thyroidal Cell Marker) Antibody - With BSA and Azide - Additional Information****Gene ID** 7038**Other Names**

Thyroglobulin, Tg, TG

**Application Note**

IHC-P~~N/A  
FC~~1:10~50

**Format**

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

**Storage**

Store at 2 to 8°C. Antibody is stable for 24 months.

**Precautions**

Thyroglobulin (Thyroidal Cell Marker) Antibody - With BSA and Azide is for research use only and not for use in diagnostic or therapeutic procedures.

**Thyroglobulin (Thyroidal Cell Marker) Antibody - With BSA and Azide - Protein Information****Name** TG ([HGNC:11764](#))**Function**

Acts as a substrate for the production of iodinated thyroid hormones thyroxine (T4) and triiodothyronine (T3) (PubMed: <http://www.uniprot.org/citations/17532758> target="\_blank">17532758</a>, PubMed: <http://www.uniprot.org/citations/32025030>)

target="\_blank">32025030</a>). The synthesis of T3 and T4 involves iodination of selected tyrosine residues of TG/thyroglobulin followed by their oxidative coupling in the thyroid follicle lumen (PubMed:<a href="http://www.uniprot.org/citations/32025030" target="\_blank">32025030</a>). Following TG re-internalization and lysosomal-mediated proteolysis, T3 and T4 are released from the polypeptide backbone leading to their secretion into the bloodstream (PubMed:<a href="http://www.uniprot.org/citations/32025030" target="\_blank">32025030</a>). One dimer produces 7 thyroid hormone molecules (PubMed:<a href="http://www.uniprot.org/citations/32025030" target="\_blank">32025030</a>).

#### Cellular Location

Secreted. Note=Secreted into the thyroid follicle lumen (PubMed:19509106). Localizes to colloid globules, a structure formed in the thyroid follicle lumen consisting of cross-linked TG arranged in concentric layers (PubMed:11082042, PubMed:8626858).

#### Tissue Location

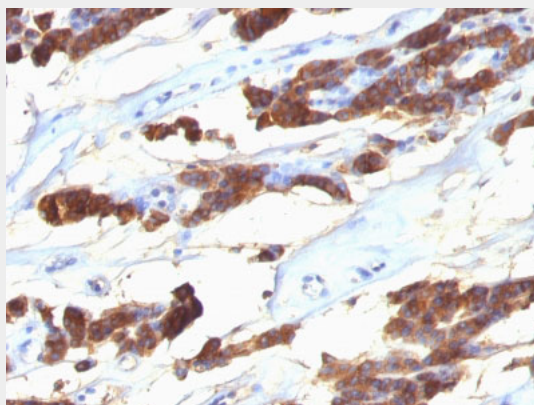
Specifically expressed in the thyroid gland.

### Thyroglobulin (Thyroidal Cell Marker) Antibody - With BSA and Azide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Thyroglobulin (Thyroidal Cell Marker) Antibody - With BSA and Azide - Images



Formalin-fixed, paraffin-embedded human Thyroid Carcinoma stained with Thyroglobulin Monoclonal Antibody (SPM221).

### Thyroglobulin (Thyroidal Cell Marker) Antibody - With BSA and Azide - Background

Thyroglobulin is a 660kDa dimeric pre-protein with multiple glycosylation sites. It is produced by and processed within the thyroid gland to produce the hormone thyroxine and triiodothyronine. Prior to forming dimers, thyroglobulin monomers undergo conformational maturation in the endoplasmic reticulum. The vast majority of follicular carcinomas of the thyroid will give positive immunoreactivity for anti-thyroglobulin even though sometimes only focally. Poorly differentiated

carcinomas of the thyroid are frequently anti-thyroglobulin negative. Adenocarcinomas of other-than-thyroid origin do not react with this antibody. This antibody is useful in identification of thyroid carcinoma of the papillary and follicular types. Presence of thyroglobulin in metastatic lesions establishes the thyroid origin of tumor. Anti-thyroglobulin, combined with anti-calcitonin, can identify medullary carcinomas of the thyroid. Furthermore, anti-thyroglobulin, combined with anti-TTF1, can be a reliable marker to differentiate between primary thyroid and lung neoplasms.

#### **Thyroglobulin (Thyroidal Cell Marker) Antibody - With BSA and Azide - References**

Ossendorp FA, et. al. Journal of Immunological Methods, 1989, 120(2):191-200. | Bellet, D, et al. J Clin Endocrin Metab 1983;56:530-533 | Heffess CS et al. Cancer. 2002;95(9):1869-78 | Judkins AR et al. Hum Pathol. 1999;30(11):1373-