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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	**,14,4,**
Primary Accession	P01266
Other Accession	7038, 654591
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

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:17532758, PubMed:32025030). 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:32025030). 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:32025030). One dimer produces 7 thyroid hormone molecules (PubMed:32025030).

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).

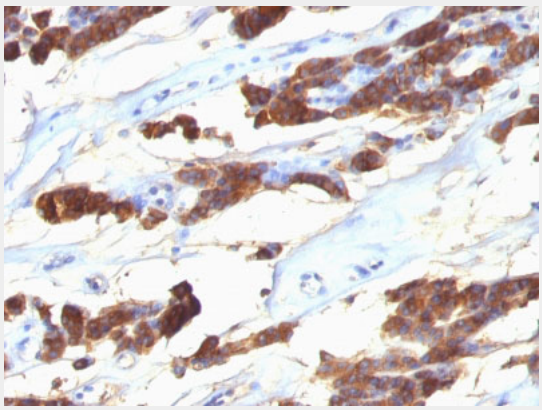
Tissue Location
Specifically expressed in the thyroid gland.

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 Cytomety
- 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 mutiple glycosylation sites. It is produced by and processed within the thyroid gland to produce the hormone thyroxine and triiodothyronine. ĀPrior to forming dimers, thyroglobulin monomers undergo conformational maturation in the endoplasmic reticulation. ĀThe 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-