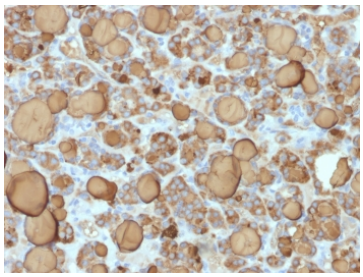
Thyroglobulin Antibody / TG Thyroid Follicular Cell Marker Antibody [clone TGB/1968R] (V3639)

Catalog No.	Formulation	Size
V3639-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3639-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3639SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3639IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

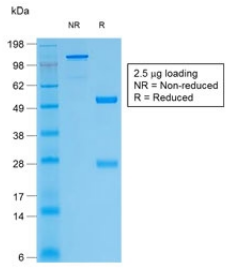
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG, kappa
Clone Name	TGB/1968R
Purity	Protein A affinity chromatography
UniProt	P01266
Localization	Cytoplasmic, secreted
Applications	Immunohistochemistry (FFPE): 0.5-1ug/ml for 30 min at RT
Limitations	This recombinant Thyroglobulin antibody is available for research use only.



Thyroglobulin Antibody / TG Thyroid Follicular Cell Marker Antibody. Immunohistochemistry analysis of Thyroglobulin using Thyroglobulin Antibody Recombinant Rabbit MAb TGB/1968R in FFPE human thyroid carcinoma tissue section. HRP-DAB brown chromogenic staining highlights strong cytoplasmic signal in thyroid follicular tumor epithelial cells arranged in follicular structures, with prominent staining of follicular luminal colloid material reflecting abundant secreted Thyroglobulin. The staining pattern is characteristic of Thyroglobulin expression in thyroid follicular epithelial cells and supports its established role as a follicular lineage marker of thyroid epithelial differentiation.



SDS-PAGE analysis of purified, BSA-free recombinant Thyroglobulin antibody (clone TGB/1968R) as confirmation of integrity and purity.

Description

Thyroglobulin (TG) is a large secreted glycoprotein produced by thyroid follicular epithelial cells and stored within the lumen of thyroid follicles where it functions as the precursor for thyroid hormone synthesis. The TG gene located on chromosome 8q24 encodes a heavily glycosylated protein that undergoes extensive folding and post-translational modification during thyroid hormone biosynthesis. Because thyroglobulin production is largely restricted to thyroid follicular epithelium, TG expression is widely used as a thyroid follicular cell marker and marker of thyroid lineage and follicular epithelial identity. Thyroglobulin Antibody therefore provides a useful reagent for detecting TG expression in studies examining thyroid follicular epithelial cells and thyroid tissue differentiation.

Within the thyroid gland, thyroglobulin is synthesized in the rough endoplasmic reticulum of follicular epithelial cells and transported through the Golgi apparatus before secretion into the follicular lumen. In the follicular colloid, TG functions as the substrate for iodination reactions that ultimately generate the thyroid hormones thyroxine and triiodothyronine. These biochemical processes reflect the specialized endocrine activity of thyroid follicular epithelial cells. Detection of Thyroglobulin protein therefore provides a reliable marker of thyroid follicular epithelial cell differentiation and thyroid lineage identity.

Thyroglobulin Antibody is widely used in research examining thyroid development, thyroid follicular epithelial cell biology, and endocrine regulation within the thyroid gland. Because TG production is closely linked to follicular epithelial cell function, detection of Thyroglobulin protein helps identify thyroid-derived cells in tissue studies and experimental models. TG expression therefore serves as an informative marker for investigating thyroid lineage specification and thyroid epithelial cell differentiation.

Alterations in Thyroglobulin expression may occur in thyroid tumors where follicular epithelial cell differentiation becomes disrupted. Well differentiated thyroid tumors typically retain TG production, while poorly differentiated tumors may show reduced thyroglobulin expression. Detection of TG using Thyroglobulin Antibody therefore supports studies of thyroid lineage markers, thyroid epithelial cell differentiation status, and molecular mechanisms regulating thyroid follicular cell biology. In this context, Thyroglobulin detection remains a valuable indicator of thyroid follicular epithelial identity and lineage commitment in both normal thyroid tissues and thyroid-derived tumors.

Application Notes

The stated application concentrations are suggested starting points. Titration of the Thyroglobulin Antibody / TG Thyroid Follicular Cell Marker Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

Human thyroid follicular cells were used as the immunogen for the recombinant Thyroglobulin antibody.

Storage

Store the recombinant Thyroglobulin antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

TG antibody, Thyroglobulin protein antibody, Thyroid follicular cell marker antibody, Thyroid lineage marker antibody

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