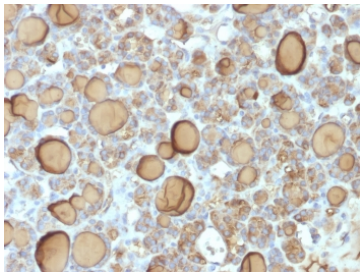
TG Antibody Recombinant Rabbit MAb TGB/1970R / Thyroglobulin Antibody [clone TGB/1970R] (V3640)

Catalog No.	Formulation	Size
V3640-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V3640-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V3640SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V3640IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

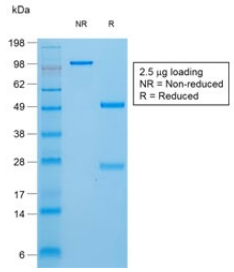
Recombinant RABBIT MONOCLONAL

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/1970R
Purity	Protein A affinity chromatography
UniProt	P01266
Localization	Cytoplasmic, secreted
Applications	Immunohistochemistry (FFPE) : 0.5-1ug/ml for 30 min at RT
Limitations	This TG/Thyroglobulin antibody is available for research use only.



TG Antibody Recombinant Rabbit MAb TGB/1970R. Immunohistochemistry analysis of Thyroglobulin using TG Antibody Recombinant Rabbit MAb TGB/1970R in FFPE human thyroid gland tissue section. HRP-DAB brown chromogenic staining highlights strong cytoplasmic signal in thyroid follicular epithelial cells forming thyroid follicles, with prominent staining of follicular luminal colloid material reflecting abundant secreted Thyroglobulin. The staining pattern is characteristic of Thyroglobulin expression in differentiated thyroid follicular epithelium, while surrounding stromal and interfollicular regions show minimal staining.



SDS-PAGE analysis of purified, BSA-free TG Antibody Recombinant Rabbit MAb TGB/1970R as confirmation of integrity and purity.

Description

Thyroglobulin (TG) is a large secreted glycoprotein synthesized 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, post-translational modification, and proteolytic processing during thyroid hormone biosynthesis. Because thyroglobulin production is largely restricted to thyroid follicular epithelium, TG expression is widely used as a marker of thyroid lineage and thyroid follicular cell differentiation. TG Antibody Recombinant Rabbit MAb TGB/1970R is therefore commonly used to detect Thyroglobulin expression in thyroid tissues and experimental systems investigating thyroid gland biology.

Within the thyroid gland, thyroglobulin is synthesized in the rough endoplasmic reticulum of thyroid 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 generate the thyroid hormones thyroxine and triiodothyronine. These biochemical processes require complex enzymatic modification of the thyroglobulin precursor protein and reflect the specialized endocrine function of thyroid follicular epithelial cells. Detection of Thyroglobulin protein therefore provides a useful approach for studying thyroid follicular epithelial cell differentiation and the molecular regulation of thyroid hormone synthesis.

TG Antibody Recombinant Rabbit MAb TGB/1970R is a recombinant rabbit monoclonal antibody developed for detection of TG protein in studies examining thyroid follicular epithelial cell biology. Antibodies targeting TG are widely used in tissue-based analyses investigating thyroid gland structure, endocrine signaling pathways, and mechanisms regulating thyroid follicular epithelial cell differentiation. Because thyroglobulin production reflects the functional activity of thyroid follicular epithelial cells, TG expression is frequently examined in studies exploring thyroid physiology and thyroid tumor biology.

Alterations in Thyroglobulin expression may occur in thyroid tumors where changes in thyroid follicular cell differentiation influence TG production. Well differentiated thyroid carcinomas frequently retain TG expression, while poorly differentiated thyroid tumors may show reduced thyroglobulin expression as follicular cell identity becomes disrupted. Detection of TG protein using TG Antibody Recombinant Rabbit MAb TGB/1970R therefore provides an informative approach for studying thyroid lineage markers, thyroid tumor differentiation status, and molecular mechanisms regulating thyroid follicular epithelial cell function.

Application Notes

The stated application concentrations are suggested starting points. Titration of the TG Antibody Recombinant Rabbit MAb TGB/1970R 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 TG Antibody Recombinant Rabbit MAb TGB/1970R.

Storage

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

Alternate Names

Thyroglobulin antibody, TG protein antibody, Thyroid hormone precursor protein antibody, Thyroid follicular cell marker antibody