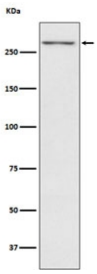
TG Antibody for WB / Thyroglobulin Western Blot Antibody [clone AFEI-20] (RQ4964)

Catalog No.	Formulation	Size
RQ4964	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-2 weeks
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	AFEI-20
Purity	Affinity purified
UniProt	P01266
Applications	Western blot: 1:1000-1:5000
Limitations	This TG antibody is available for research use only.



TG Antibody for WB. Western blot analysis using TG Antibody for WB (clone AFEI-20) in human thyroid tissue lysate. Lane 1: human thyroid lysate. A band is detected at approximately 300 kDa, consistent with the predicted molecular weight of Thyroglobulin (TG), a large glycosylated thyroid hormone precursor protein produced by thyroid follicular epithelial cells.

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 highly glycosylated protein that undergoes extensive folding, glycosylation, and proteolytic processing during thyroid hormone production. Because thyroglobulin synthesis is largely restricted to thyroid follicular epithelium, TG protein expression is commonly examined in biochemical assays studying thyroid differentiation and

endocrine signaling. TG Antibody for WB is therefore widely used in western blot analysis to detect Thyroglobulin protein in thyroid tissue lysates and experimental systems investigating thyroid-specific protein expression.

Western blot analysis of Thyroglobulin presents distinctive detection characteristics due to the extremely large size and extensive glycosylation of the TG protein. During biosynthesis, thyroglobulin is produced as a large precursor polypeptide that undergoes complex post-translational modification and proteolytic processing before secretion into the thyroid follicular lumen. As a result, western blot experiments using a TG western blot antibody frequently detect high molecular weight TG species together with smaller processed fragments that arise during hormone precursor processing or protein turnover. Detection of these TG protein species by western blot provides useful information about thyroglobulin expression levels and protein processing within thyroid follicular epithelial cells.

TG Antibody for WB clone AFEI-20 is a recombinant rabbit monoclonal antibody developed for sensitive detection of Thyroglobulin protein in western blot assays. In western blot workflows, TG antibody detection enables visualization of thyroglobulin protein species present in thyroid tissue lysates, thyroid-derived cell lines, or experimental models of thyroid follicular cell biology. Western blot detection of TG is commonly used to monitor thyroglobulin production in thyroid epithelial cells and to evaluate biochemical regulation of thyroid hormone precursor proteins. Because TG is abundantly produced by differentiated thyroid follicular cells, western blot assays often reveal strong TG protein bands in thyroid tissue lysates compared with non-thyroid tissues.

Western blot detection of TG is also valuable in studies examining thyroid tumor biology and alterations in thyroid follicular cell differentiation. Changes in TG protein expression observed by western blot may reflect shifts in thyroid cell differentiation status or disruptions in thyroglobulin biosynthesis pathways associated with thyroid tumor progression. TG Antibody for WB therefore provides an effective reagent for monitoring Thyroglobulin expression in western blot experiments investigating thyroid physiology, thyroid carcinoma models, and molecular mechanisms regulating thyroid follicular epithelial cell function.

Application Notes

Optimal dilution of the TG Antibody for WB should be determined by the researcher.

Immunogen

A synthetic peptide specific to human Thyroglobulin / TG was used as the immunogen for the TG Antibody for WB.

Storage

Store the TG antibody at -20oC.

Alternate Names

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

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