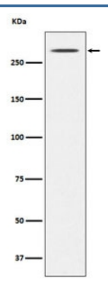
Thyroglobulin Antibody for WB / TG Western Blot Antibody [clone AFEC-20] (RQ4963)

Catalog No.	Formulation	Size
RQ4963	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, Mouse
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	AFEC-20
Purity	Affinity purified
UniProt	P01266
Applications	Western blot: 1:1000-1:5000 Immunohistochemistry (FFPE): 1:50-1:200
Limitations	This Thyroglobulin antibody is available for research use only.



Thyroglobulin Antibody for WB. Western blot analysis using Thyroglobulin Antibody for WB (clone AFEC-20) in mouse thyroid lysate. Lane 1: mouse 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 abundantly produced by thyroid follicular epithelial cells.

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 highly glycosylated protein that undergoes extensive folding, glycosylation, and proteolytic processing during thyroid hormone biosynthesis. Because thyroglobulin production is largely restricted to thyroid follicular

epithelium, TG protein expression is widely analyzed in biochemical assays studying thyroid differentiation and thyroid hormone production. Thyroglobulin Antibody for WB is commonly used in western blot experiments to detect TG protein in thyroid tissue lysates, thyroid epithelial cell models, and studies examining thyroid-specific protein expression.

Western blot analysis of thyroglobulin presents distinctive detection characteristics due to the large size and heavy glycosylation of the TG protein. Thyroglobulin is synthesized as a very large precursor protein that undergoes extensive post-translational modification and proteolytic cleavage during secretion into the thyroid follicular lumen. As a result, western blot experiments using a TG western blot antibody frequently reveal multiple bands representing intact thyroglobulin precursor protein as well as smaller processed fragments generated during thyroid hormone production. These banding patterns are commonly observed when analyzing thyroid tissue lysates or thyroid carcinoma models and reflect the complex biosynthetic processing of thyroglobulin within thyroid follicular epithelial cells.

Thyroglobulin Antibody for WB clone AFEC-20 is a recombinant rabbit monoclonal antibody designed for sensitive detection of TG protein in western blot assays. In western blot workflows, TG antibody detection enables visualization of thyroglobulin protein species present in thyroid-derived samples and experimental systems modeling thyroid follicular cell biology. Western blot analysis using TG antibody can therefore be used to evaluate thyroglobulin expression levels, protein processing patterns, and biochemical regulation of thyroid hormone precursor proteins. TG western blot antibody reagents are particularly useful when studying thyroid-specific protein expression, endocrine signaling pathways, and mechanisms that regulate thyroglobulin biosynthesis within thyroid follicular epithelial cells.

Western blot detection of TG is also widely applied in research investigating thyroid tumor biology and changes in thyroid follicular cell differentiation. Alterations in thyroglobulin expression detected by western blot may reflect shifts in thyroid cell differentiation status or disruptions in thyroglobulin synthesis pathways that occur during thyroid tumor progression. Thyroglobulin Antibody for WB therefore provides a useful reagent for monitoring TG protein expression in western blot experiments examining thyroid physiology, thyroid carcinoma models, and molecular mechanisms regulating thyroid follicular epithelial cell function.

Application Notes

Optimal dilution of the Thyroglobulin 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 Thyroglobulin Antibody for WB.

Storage

Store the Thyroglobulin antibody at -20oC.

Alternate Names

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

Copyright © NSJ Bioreagents. All rights reserved.