

Thyroglobulin (N-15): sc-7836

BACKGROUND

Thyroglobulin is a large preprotein containing multiple glycosylation sites. Located in the thyroid gland, Thyroglobulin is the precursor of the iodinated thyroid hormones Thyroxine and Triiodothyronine. Thyroglobulin monomers undergo conformational maturation in the endoplasmic reticulum, prior to forming dimers. This dimerization, as well as export of Thyroglobulin to the Golgi complex, has been shown to require Ca²⁺. Defects in Thyroglobulin are known to cause some types of goiter (an enlargement of the thyroid gland). This condition is thought to result from defective dimerization and transport of Thyroglobulin to the Golgi complex.

CHROMOSOMAL LOCATION

Genetic locus: TG (human) mapping to 8q24.22; Tg (mouse) mapping to 15 D2.

SOURCE

Thyroglobulin (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Thyroglobulin of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-7836 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Thyroglobulin (N-15) is recommended for detection of Thyroglobulin of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Thyroglobulin (N-15) is also recommended for detection of Thyroglobulin in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Thyroglobulin siRNA (h): sc-63346, Thyroglobulin siRNA (m): sc-63347, Thyroglobulin shRNA Plasmid (h): sc-63346-SH, Thyroglobulin shRNA Plasmid (m): sc-63347-SH, Thyroglobulin shRNA (h) Lentiviral Particles: sc-63346-V and Thyroglobulin shRNA (m) Lentiviral Particles: sc-63347-V.

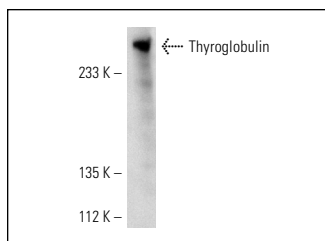
Molecular Weight of Thyroglobulin isoforms: 305/298 kDa.

Positive Controls: human thyroid extract: sc-363782 or rat thyroid extract: sc-2402.

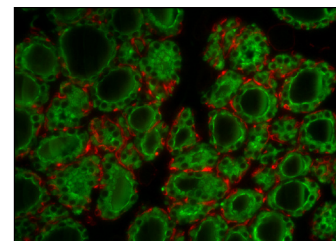
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Thyroglobulin (N-15): sc-7836. Western blot analysis of Thyroglobulin expression in rat thyroid tissue extract.



Thyroglobulin (N15): sc-7836. Mouse thyroid tissue; Thyroglobulin Green, Keratin 14 Red. Formalin fixed paraffin sections with tris retrieval. Kindly provided by A.G. Farr, University of Washington, and M.C. Zúñiga University of California Santa Cruz.

SELECT PRODUCT CITATIONS

- Christis, C., et al. 2010. Regulated increase in folding capacity prevents unfolded protein stress in the ER. *J. Cell Sci.* 123: 787-794.
- Löf, C., et al. 2012. Communication between the calcium and cAMP pathways regulate the expression of the TSH receptor: TRPC2 in the center of action. *Mol. Endocrinol.* 26: 2046-2057.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
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Try **Thyroglobulin (D-9): sc-365997** or **Thyroglobulin (1D4): sc-53543**, our highly recommended monoclonal alternatives to Thyroglobulin (N-15).