**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 Ca$^{2+}$. 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

Thyroglobulin (F-7) is a mouse monoclonal antibody raised against amino acids 19-180 mapping near the N-terminus of Thyroglobulin of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

**STORAGE**

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

**APPLICATIONS**

Thyroglobulin (F-7) is recommended for detection of Thyroglobulin of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).


Molecular Weight of Thyroglobulin isoforms: 305/298 kDa.

Positive Controls: mouse thyroid extract: sc-2407.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1. Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), 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).


**DATA**

**RESEARCH USE**

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