9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

Thyroglobulin Human

Thyroglobulin Human Recombinant
RCP2375

Product Overview

Name	Thyroglobulin Human
Description	
Thyroglobulin Human Recombinant	
Accession (Primary)	P01266
Synonyms	
Thyroglobulin, TGN, AITD3, TG.	
Source	
Mammalian cell line.	
Physical Appearance	
Sterile Filtered White lyophilized (freeze-dried) powder.	
Formulation	
Thyroglobulin was lyophilized from PBS, pH 7.4 and 5.4 % sucrose.	
Stability	
Lyophilized Thyroglobulin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Thyroglobulin should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.	
Purity	
Greater than 95.0% as determined by SDS-PAGE.	
Solubility	
It is recommended to reconstitute the lyophilized Thyroglobulin in sterile 18MΩ-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.	
Background	
Thyroglobulin, a glycoprotein primarily produced in the thyroid gland, stands at the center of thyroid hormone synthesis. Comprising a series of tyrosine residues, thyroglobulin serves as the scaffold upon which thyroid hormones are assembled. Beyond its pivotal role in thyroid physiology, thyroglobulin has garnered significant attention in the realm of thyroid disease diagnostics, offering valuable insights into thyroid function and disorders. This research delves into the intricacies of thyroglobulin human recombinant protein, exploring its biochemical properties, physiological significance, and its crucial applications in both clinical and research settings. Structural Complexity of Thyroglobulin:	

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Thyroglobulin is a large, dimeric protein boasting an intricate structure composed of multiple domains. Within its structure lie tyrosine residues crucial for iodine incorporation, a process fundamental for thyroid hormone synthesis. Its size and complexity reflect the sophistication of thyroid hormone production, as thyroglobulin acts as a reservoir for thyroid hormones within the thyroid follicles. Physiological Significance in Thyroid Function: Thyroglobulin plays a central role in the synthesis of triiodothyronine (T3) and thyroxine (T4), the thyroid hormones essential for regulating metabolism and overall body homeostasis. During thyroid hormone synthesis, thyroglobulin is secreted into the follicular lumen, where it undergoes iodination and subsequent proteolysis, releasing T3 and T4. This process highlights the indispensable nature of thyroglobulin in thyroid hormone production, making it a key biomolecule in thyroid physiology.

Precautions

Thyroglobulin Human is for research use only and not for use in diagnostic or therapeutic procedures.

Target Information: (P01266)

Background

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