

Thyroglobulin Human

Thyroglobulin Human Recombinant

RCP2375

Product Overview

Name	Thyroglobulin Human
Accession(Primary)	P01266
Description	Thyroglobulin Human Recombinant

Target information (P01266)

Gene Name

About Gene Symbol

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: 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.