Human Thyroid Peroxidase Protein

Cat. No. TPO-HM101

Description

Source	Recombinant Human Thyroid Peroxidase Protein is expressed from HEK293 with His tag at the C-Terminus.
	It contains Phe19-Arg846.
Accession	P07202-1
Molecular Weight	The protein has a predicted MW of 90.6 kDa. Due to glycosylation, the protein migrates to 95-105 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE
	> 95% as determined by HPLC

Formulation and Storage

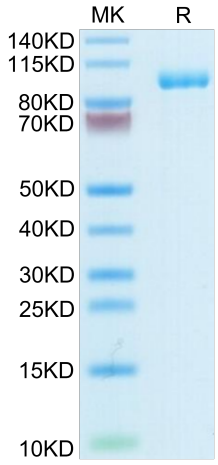
Formulation	Supplied as 0.22 μm filtered solution in PBS (pH 7.4).
Storage	Valid for 12 months from date of receipt when stored at -80°C. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Thyroid peroxidase, also called thyroperoxidase (TPO) or iodide peroxidase that encodes a 933 amino-acid residue (aa) molecule with a single membrane-spanning region. Thyroid peroxidase plays a key role in thyroid hormone synthesis by catalyzing both the iodination of tyrosine residues to form monoiodotyrosine (MIT) and diiodotyrosine (DIT) residues and the coupling of iodotyrosine residues in Tg, resulting in the formation of T3 and T4. It is a frequent epitope of autoantibodies in autoimmune thyroid disease, for example, the expression of thyroid peroxidase is lost in papillary thyroid carcinoma.

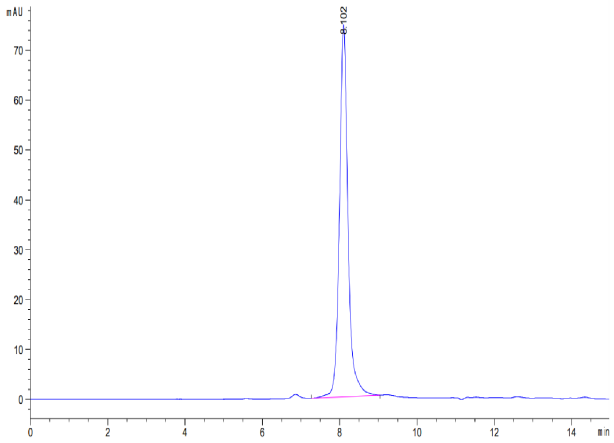
Assay Data

Bis-Tris PAGE



Human Thyroid Peroxidase on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

SEC-HPLC



The purity of Human Thyroid Peroxidase is greater than 95% as determined by SEC-HPLC.