Mouse Thyroid Peroxidase Protein

Cat. No. TPO-MM101

Description

Source	Recombinant Mouse Thyroid Peroxidase Protein is expressed from HEK293 with His tag at the C-Terminus.
	It contains Gly32-Arg834.
Accession	P35419
Molecular Weight	The protein has a predicted MW of 90.6 kDa. Due to glycosylation, the protein migrates to 100-115 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

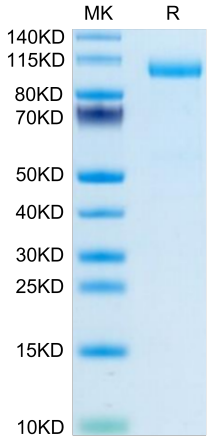
Formulation	Lyophilized from 0.22μm filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 μg/ml is recommended. Dissolve the lyophilized protein in distilled water.
Storage	-20 to -80°C for 12 months as supplied from date of receipt.-80°C for 3 months after reconstitution.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.

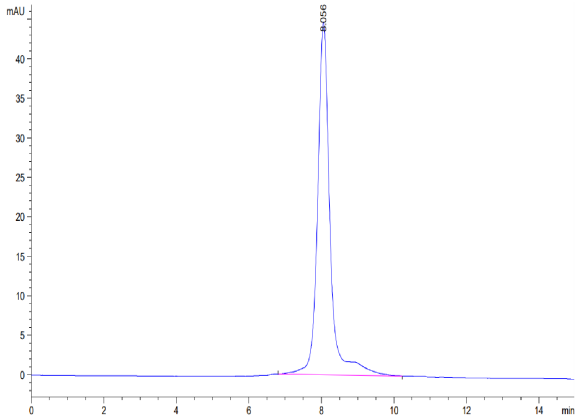
Assay Data

Bis-Tris PAGE



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

SEC-HPLC



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