

QED Bioscience Inc.

ADVANCED RESEARCH TECHNOLOGIES

Recombinant Human Thyroid Peroxidase (TPO)

ORDERING INFORMATION

Catalog Number	Size
25004P	100ug

Formulation: Lyophilized from 20mM Tris-HCl, pH 8.0, 250mM NaCl, 0.1mM KI, 5% D-mannitol. Reconstitute with sterile deionized H₂O.

BACKGROUND

Thyroid peroxidase (TPO) is an integral apical membrane glycoprotein of thyroid follicular cells and plays a key role in thyroid hormone biosynthesis. It is a homodimer comprised of two identical subunits of approx. 100kDa. TPO is one of the main autoantigenic targets in autoimmune thyroid disease of humans. Anti-TPO autoantibodies are present in 90% of cases of Hashimoto's thyroiditis and 75% of cases of Graves' disease.

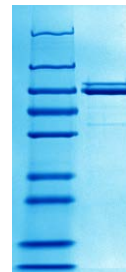
DESCRIPTION

Recombinant human TPO produced in insect cells corresponds to aa 19-846 (calculated molecular weight approx. 92kDa) of the soluble extracellular domain of human TPO. It does not contain any tags. It is purified by specific monoclonal antibody-based affinity and ion exchange chromatographic methods. In SDS-PAGE, two bands in the region of 100-110kDa are observed due to differential glycosylation of the protein. Immunoreactivity of rhuTPO is confirmed by ELISA with patient serum samples containing anti-TPO autoantibodies.

SPECIFICATION SUMMARY

Source: Insect cells

Purity: Greater than 95% as determined by SDS-PAGE. Identity confirmed by MALDI mass spectrometry.



SDS-PAGE of recombinant human TPO, reducing conditions.

Lane 1: MW standards 250, 130, 100, 70, 55, 35, 25, 15, and 10kDa.

Lane 2: recombinant human TPO, 1ug.

STORAGE AND STABILITY

Store at -20°C in lyophilized form.

After reconstitution, store at -70°C.

Avoid repeated freezing and thawing.

For in vitro investigational use only. Not for use in therapeutic or diagnostic procedures.