Creative Enzymes®

# Thyroid Peroxidase from Human, Recombinant

*Cat. No. NATE-0919*

*Lot. No.* (See product label)

## Introduction

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| ***Description*** | Thyroid Peroxidase (TPO) represents one of the main autoantigenic targets in autoimmune thyroid disease of humans. Its identity with the formerly so-called "microsomal antigen" has been shown several years ago. As an integral membrane glycoprotein it is restricted to the apical plasma membrane of the follicular epithelial cells and comprises two identical subunits of approx. 100 kDa molecular weight. The hemoprotein TPO plays a key role in the thyroid hormone biosynthesis by catalysing both the iodination of tyrosyl residues and the coupling of iodotyrosyl residues in thyroglobulin (TG) to form precursors of the thyroid hormones T4 and T3. |
| ***Applications*** | Western-Blot |
| ***Synonyms*** | Thyroid peroxidase; EC 1.11.1.8; TPO; MSA; TPX; iodotyrosine deiodase; iodinase; iodoperoxidase (heme type); iodide peroxidase-tyrosine iodinase; iodotyrosine deiodinase; monoiodotyrosine deiodinase; thyroperoxidase; tyrosine iodinase; iodide peroxidase |

## Product Information

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| ***Species*** | Human |
| ***Source*** | Sf9 insect cells |
| ***CAS No.*** | 9031-28-1 |
| ***Molecular Weight*** | 92,872 Da |
| ***Purity*** | Greater than 95% as determined by SDS-PAGE. |
| ***Concentration*** | 0.15-0.375 μg/ml (depending on the type of ELISA plate and coating buffer). Suitable for biotinylation and iodination. |
| ***Buffer*** | TPO is supplied in 16mM HEPES pH-7.6, 160mM NaCl, 0.08mM Kl and 20% glycerol. |

## Storage and Shipping Information

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| ***Storage*** | Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles. |