Creative Enzymes®

iodide peroxidase

Cat. No. EXWM-0510

Lot. No. (See product label)

Introduction

Description	Thyroid peroxidase catalyses the biosynthesis of the thyroid hormones L-thyroxine and triiodo-L-thyronine. It catalyses both the iodination of tyrosine residues in thyroglobulin (forming mono- and di-iodinated forms) and their coupling to form either L-thyroxine or triiodo-L-thyronine.
Synonyms	thyroid peroxidase; iodotyrosine deiodase; iodinase; iodoperoxidase (heme type); iodide peroxidase-tyrosine iodinase; iodotyrosine deiodinase; monoiodotyrosine deiodinase; thyroperoxidase; tyrosine iodinase; TPO

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.11.1.8
CAS No.	9031-28-1
Reaction	(1) 2 iodide + H2O2 + 2 H+ = diiodine + 2 H2O; (2) [thyroglobulin]-L-tyrosine + iodide + H2O2 = [thyroglobulin]-3-iodo-L-tyrosine + 2 H2O; (3) [thyroglobulin]-3-iodo-L-tyrosine + iodide + H2O2 = [thyroglobulin]-3,5-diiodo-L-tyrosine + 2 H2O; (4) 2 [thyroglobulin]-3,5-diiodo-L-tyrosine + H2O2 = [thyroglobulin]-L-thyroxine + [thyroglobulin]-aminoacrylate + 2 H2O; (5) [thyroglobulin]-3-iodo-L-tyrosine + [thyroglobulin]-3,5-diiodo-L-tyrosine + H2O2 = [thyroglobulin]-3,5,3'-triiodo-L-thyronine + [thyroglobulin]-aminoacrylate + 2 H2O
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage	Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.