Creative Enzymes®

tyrosine phenol-lyase

Cat. No. EXWM-4933

Lot. No. (See product label)

Introduction

Description A pyridoxal-phosphate protein. The enzyme cleaves a carbon-carbon bond, releasing phenol and an unstable enamine product that tautomerizes to an imine form, which undergoes a hydrolytic deamination to form pyruvate and ammonia. The latter reaction, which can occur spontaneously, can also be catalysed by EC 3.5.99.10, 2-iminobutanoate/2-iminopropanoate deaminase. The enzyme also slowly catalyses similar reactions with D-tyrosine, S-methyl-L-cysteine, L-cysteine, L-serine and D-serine.

Synonyms β-tyrosinase; L-tyrosine phenol-lyase (deaminating)

Product Information

Form Liquid or lyophilized powder

EC Number EC 4.1.99.2

CAS No. 9059-31-8

Reaction L-tyrosine + H2O = phenol + pyruvate + NH3 (overall reaction); (1a) L-tyrosine = phenol + 2-aminoprop-2-enoate; (1b) 2-aminoprop-2-enoate = 2-iminopropanoate (spontaneous); (1c) 2-iminopropanoate + H2O = pyruvate + NH3 (spontaneous)

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 ℃.