

unspecific peroxygenase

Cat. No. EXWM-0512

Lot. No. (See product label)

Introduction

Description

A heme-thiolate protein (P-450). Enzymes of this type include glycoproteins secreted by agaric basidiomycetes. They catalyse the insertion of an oxygen atom from H₂O₂ into a wide variety of substrates, including aromatic rings such as naphthalene, toluene, phenanthrene, pyrene and p-nitrophenol, recalcitrant heterocycles such as pyridine, dibenzofuran, various ethers (resulting in O-dealkylation) and alkanes such as propane, hexane and cyclohexane. Reactions catalysed include hydroxylation, epoxidation, N-oxidation, sulfoxidation, O- and N-dealkylation, bromination and one-electron oxidations. They have little or no activity toward chloride. Mechanistically, the catalytic cycle of unspecific (mono)-peroxygenases combines elements of the "shunt" pathway of cytochrome P-450s (a side activity that utilizes a peroxide in place of dioxygen and NAD[P]H) and the classic heme peroxidase cycle.

Synonyms

aromatic peroxygenase; mushroom peroxygenase; haloperoxidase-peroxygenase; Agrocybe aegerita peroxidase

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.11.2.1

Reaction

$\text{RH} + \text{H}_2\text{O}_2 = \text{ROH} + \text{H}_2\text{O}$

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 °C for short term. For long term storage, store it at -20 °C~-80 °C.