

manganese peroxidase

Cat. No. EXWM-0494

Lot. No. (See product label)

Introduction

Description A hemoprotein. The enzyme from white rot basidiomycetes is involved in the oxidative degradation of lignin. The enzyme oxidizes a bound Mn^{2+} ion to Mn^{3+} in the presence of hydrogen peroxide. The product, Mn^{3+} , is released from the active site in the presence of a chelator (mostly oxalate and malate) that stabilizes it against disproportionation to Mn^{2+} and insoluble Mn^{4+} . The complexed Mn^{3+} ion can diffuse into the lignified cell wall, where it oxidizes phenolic components of lignin and other organic substrates. It is inactive with veratryl alcohol or nonphenolic substrates.

Synonyms peroxidase-M2; Mn-dependent (NADH-oxidizing) peroxidase

Product Information

Form Liquid or lyophilized powder

EC Number EC 1.11.1.13

CAS No. 114995-15-2

Reaction $2 Mn(II) + 2 H^+ + H_2O_2 = 2 Mn(III) + 2 H_2O$

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.