

senecionine N-oxygenase

Cat. No. EXWM-0700

Lot. No. (See product label)

Introduction

Description

A flavoprotein. NADH cannot replace NADPH. While pyrrolizidine alkaloids of the senecionine and monocrotaline types are generally good substrates (e.g. senecionine, retrorsine and monocrotaline), the enzyme does not use ester alkaloids lacking an hydroxy group at C-7 (e.g. supinine and phalaenopsine), 1,2-dihydro-alkaloids (e.g. sarracine) or unesterified necine bases (e.g. senkirkine) as substrates. Senecionine N-oxide is used by insects as a chemical defense: senecionine N-oxide is non-toxic, but it is bioactivated to a toxic form by the action of cytochrome P-450 oxidase when absorbed by insectivores.

Synonyms

senecionine monooxygenase (N-oxide-forming); SNO

Product Information

Form

Liquid or lyophilized powder

EC Number

EC 1.14.13.101

CAS No.

220581-68-0

Reaction

senecionine + NADPH + H⁺ + O₂ = senecionine N-oxide + NADP⁺ + 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 °C for short term. For long term storage, store it at -20 °C~-80 °C.