Creative Enzymes®

vitamin D3 24-hydroxylase

Cat. No. EXWM-0941

Lot. No. (See product label)

Introduction

Description	This mitochondrial cytochrome P-450 enzyme requires adrenodoxin. The enzyme can perform up to 6 rounds of hydroxylation of the substrate calcitriol leading to calcitroic acid. The human enzyme also shows 23-hydroxylating activity leading to 1,25 dihydroxyvitamin D3-26,23-lactone as end product while the mouse and rat enzymes do not. The initial source of the electrons is NADPH, which transfers the electrons to the adrenodoxin via EC 1.18.1.6, adrenodoxin-NADP+ reductase.
Synonyms	CYP24A1

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 1.14.15.16
Reaction	(1) calcitriol + 2 reduced adrenodoxin + 2 H+ + O2 = calcitetrol + 2 oxidized adrenodoxin + H2O; (2) calcidiol + 2 reduced adrenodoxin + 2 H+ + O2 = secalciferol + 2 oxidized adrenodoxin + 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 ℃.