

## 25/26-hydroxycholesterol 7 $\alpha$ -hydroxylase

Cat. No. EXWM-0926

Lot. No. (See product label)

### Introduction

#### Description

A P-450 (heme-thiolate) protein. Unlike EC 1.14.14.26, 24-hydroxycholesterol 7 $\alpha$ -monooxygenase, which is specific for its oxysterol substrate, this enzyme can also metabolize the oxysterols 24,25-epoxycholesterol, 22-hydroxycholesterol and 24-hydroxycholesterol, but to a lesser extent. The direct electron donor to the enzyme is EC 1.6.2.4, NADPH-hemoprotein reductase.

#### Synonyms

25-hydroxycholesterol 7 $\alpha$ -monooxygenase; CYP7B1; CYP7B1 oxysterol 7 $\alpha$ -hydroxylase; 27-hydroxycholesterol 7-monooxygenase; 27-hydroxycholesterol 7 $\alpha$ -hydroxylase; cholest-5-ene-3 $\beta$ ,25-diol,NADPH:oxygen oxidoreductase (7 $\alpha$ -hydroxylating); 25-hydroxycholesterol 7 $\alpha$ -hydroxylase

### Product Information

#### Form

Liquid or lyophilized powder

#### EC Number

EC 1.14.14.29

#### CAS No.

149316-80-3

#### Reaction

(1) cholest-5-ene-3 $\beta$ ,25-diol + [reduced NADPH-hemoprotein reductase] + O<sub>2</sub> = cholest-5-ene-3 $\beta$ ,7 $\alpha$ ,25-triol + [oxidized NADPH-hemoprotein reductase] + H<sub>2</sub>O; (2) (25R)-cholest-5-ene-3 $\beta$ ,26-diol + [reduced NADPH-hemoprotein reductase] + O<sub>2</sub> = (25R)-cholest-5-ene-3 $\beta$ ,7 $\alpha$ ,26-triol + [oxidized NADPH-hemoprotein reductase] + H<sub>2</sub>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.