Creative Enzymes®

# 3-ketosteroid 9α-monooxygenase

*Cat. No. EXWM-0742*

*Lot. No.* (See product label)

## Introduction

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| ***Description*** | The enzyme is involved in the cholesterol degradation pathway of several bacterial pathogens, such as Mycobacterium tuberculosis. It is a two-component system consisting of a terminal oxygenase (KshA) and a ferredoxin reductase (KshB). The oxygenase contains a Rieske-type iron-sulfur center and non-heme iron. The reductase component is a flavoprotein containing an NAD-binding domain and a plant-type iron-sulfur cluster. The product of the enzyme is unstable, and spontaneously converts to 3-hydroxy-9,10-seconandrost-1,3,5(10)-triene-9,17-dione. |
| ***Synonyms*** | KshAB; 3-ketosteroid 9α-hydroxylase |

## Product Information

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| ***Form*** | Liquid or lyophilized powder |
| ***EC Number*** | EC 1.14.13.142 |
| ***Reaction*** | androsta-1,4-diene-3,17-dione + NADH + H+ + O2 = 9α-hydroxyandrosta-1,4-diene-3,17-dione + NAD+ + 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

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| ***Storage*** | Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃. |