Creative Enzymes®

# Native Schizophyllum commune Cholesterol Esterase

*Cat. No. DIA-133*

*Lot. No.* (See product label)

## Introduction

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| ***Description*** | Sterol esterase belongs to the family of hydrolases, specifically those acting on carboxylic ester bonds. The systematic name of this enzyme class is steryl-ester acylhydrolase. This enzyme participates in bile acid biosynthesis. |
| ***Applications*** | This enzyme is useful for enzymatic determination of total cholesterol when coupled with cholesterol oxidase in clinical analysis. |
| ***Synonyms*** | cholesterol esterase; cholesteryl ester synthase; triterpenol esterase; cholesteryl esterase; cholesteryl ester hydrolase; sterol ester hydrolase; cholesterol ester hydrolase; cholesterase; acylcholesterol lipase; EC 3.1.1.13; Sterol esterase |

## Product Information

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| ***Source*** | Schizophyllum commune |
| ***Appearance*** | Light brown amorphous powder, lyophilized |
| ***EC Number*** | EC 3.1.1.13 |
| ***CAS No.*** | 9026-00-0 |
| ***Molecular Weight*** | approx. 130 kDa |
| ***Activity*** | GradeIII 2.0 U/mg-solid or more (containing approx. 20% of stabilizers) |
| ***Isoelectric point*** | 4.1±0.1 |
| ***pH Stability*** | pH 2.5-7.5 (25°C, 20hr) |
| ***Optimum pH*** | 4.8-8.0 (Cholesterol linoleate), 5.0 (serum) |
| ***Thermal stability*** | below 55°C (pH 5.5, 10min) |
| ***Optimum temperature*** | 55-60°C |
| ***Michaelis Constant*** | $3.9\times10^{-5}$M (Linoleate), $9.2\times10^{-5}$M (Palmitate), $6.3\times10^{-5}$M (Decylate), $8.8\times10^{-5}$M (Propionate) |
| ***Inhibitors*** | Heavy metal ions ($Hg^{++}$, $Ag^{+}$, $Fe^{+++}$) |
| ***Stabilizers*** | Na-Cholate |

## Storage and Shipping Information

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| ***Stability*** | Store at -20°C |