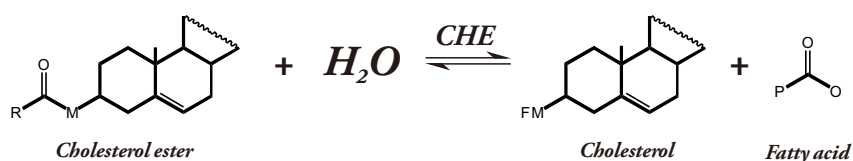


CHOLESTEROL ESTERASE

Steryl-ester acylhydrolase

REACTION:



PRODUCT DESCRIPTION

Catalog No.:	qs50025
Appearance:	White amorphous powder
Source:	Microorganism
Enzyme Commission Number:	EC 3.1.1.13
CAS Number:	9026-00-0
Storage temperature:	-20°C
Specific activity:	≥ 150U/mg protein
Unit definition:	One unit will convert one micromole of cholesterol ester to cholesterol per minute at pH 7.0 at 37°C.

PROPERTIES

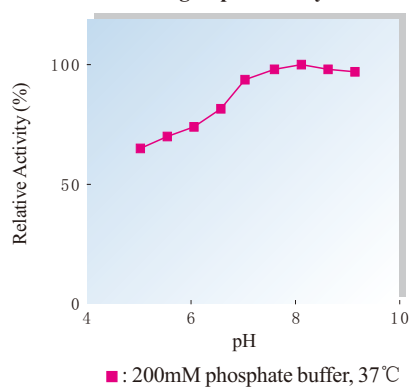
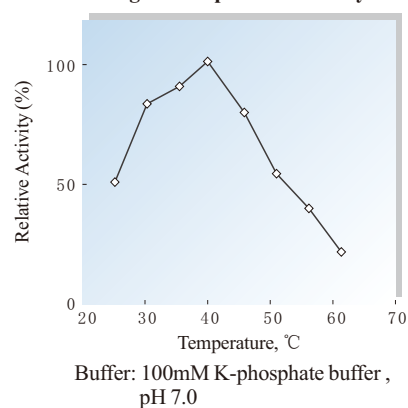
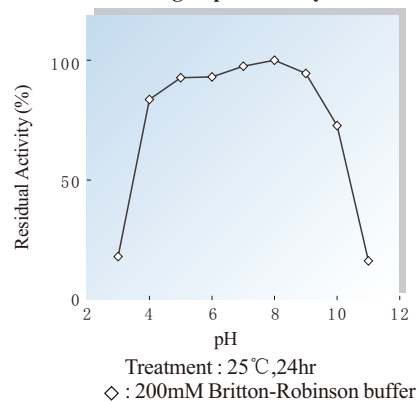
Molecular weight:	300 kDa (Gel filtration)	
Isoelectric point:	5.9	
Michaelis constant:	5.4×10^{-5} M (Linoleate)	
Optimum pH:	7.0~9.0	{Fig. 1}
Optimum temperature:	40°C	{Fig. 3}
pH Stability:	5.0~9.0 (25°C, 24hr)	{Fig. 2}
Thermal stability:	< 55°C (pH 7.5, 10min)	{Fig. 4}
Inhibitors:	Cu ²⁺	
Effect of various chemicals:		{Table 1}

Table 1.**Effect of Various Chemicals on CHE**

[The enzyme dissolved in 100mM Tris-HCl buffer, pH 7.5 (10U/ml) was incubated with each chemical at 37°C for 2hr.]

Chemical	Concn. (mM)	Residual activity
None	-	100%
CaCl ₂	2.0	89%
CoCl ₂	2.0	102%
CuSO ₄	2.0	81%
FeCl ₃	2.0	99%
MgSO ₄	2.0	90%
MnSO ₄	2.0	90%
NiCl ₂	2.0	95%
ZnSO ₄	2.0	89%

Chemical	Concn. (mM)	Residual activity
BME	2.0	108%
NEM	2.0	94%
EDTA	5.0	97%
NaN ₃	20.0	90%
Na-cholate	0.10%	86%
SDS	0.05%	98%
Triton X-100	0.10%	93%
Tween 20	0.10%	98%
Boric Acid-Borax	2.0	98%

Fig. 1 pH Activity**Fig. 3 Temperature activity****Fig. 2 pH Stability****Fig. 4 Thermal stability**