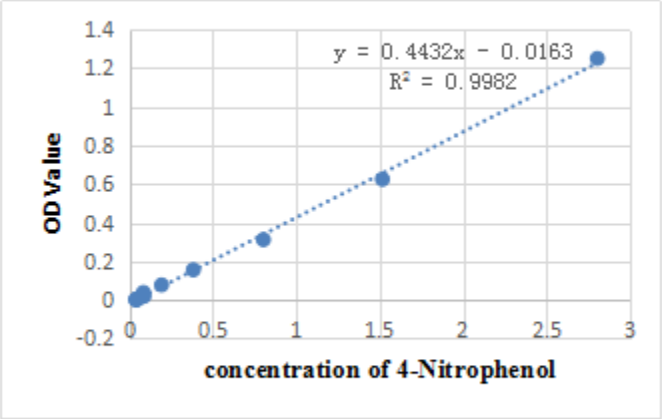
Active Carboxylesterase 1 (CES1) Instruction Manual

SBPC302Mu01

Mus musculus (Mouse)

Buffer Formulation	20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
Traits	Freeze-dried powder
Purity	> 95%
Isoelectric Point	5.9
Applications	Cell culture; Activity Assays.

ACTIVITY TEST



4-Nitrophenol (product)mM/L	OD400nm
1.25	2.806
0.625	1.5165
0.3125	0.8025
0.15625	0.382
0.078125	0.1915
0.0390625	0.0825
0.01953125	0.086
0.009765625	0.0545
0.004882813	0.044
0.002441406	0.036
0.001220703	0.0405

Figure 1. The standard curve of 4-Nitrophenol

carboxylesterase 1(CES1) also known as Liver carboxylesterase 1 is a serine esterase and member of a large multigene carboxylesterase family. The protein Involved in the detoxification of xenobiotics and in the activation of ester and amide prodrugs. Hydrolyzes aromatic and aliphatic esters, but has no catalytic activity toward amides or a fatty acyl-CoA ester. Hydrolyzes the methyl ester group of cocaine to form benzoylecgonine. Thus, the recombinant mouse CES1 activity was measured by its ability to hydrolyze 4-Nitrophenyl acetate (4-NPA) to 4-Nitrophenol. The reaction was performed in 50 mM Tris, 150 mM NaCl, pH 7.5(Assay Buffer), ainitiated by addition

50 μL of various concentrations of CES1(dilute by Assay Buffer) to 50 μL of 2 mM Substrate 4-NPA(100 mM stock in Acetone, dilute by deionized water). Incubated at 37℃ for 10min, then read at a wavelength of 400 nm.

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

STABILITY

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

Image

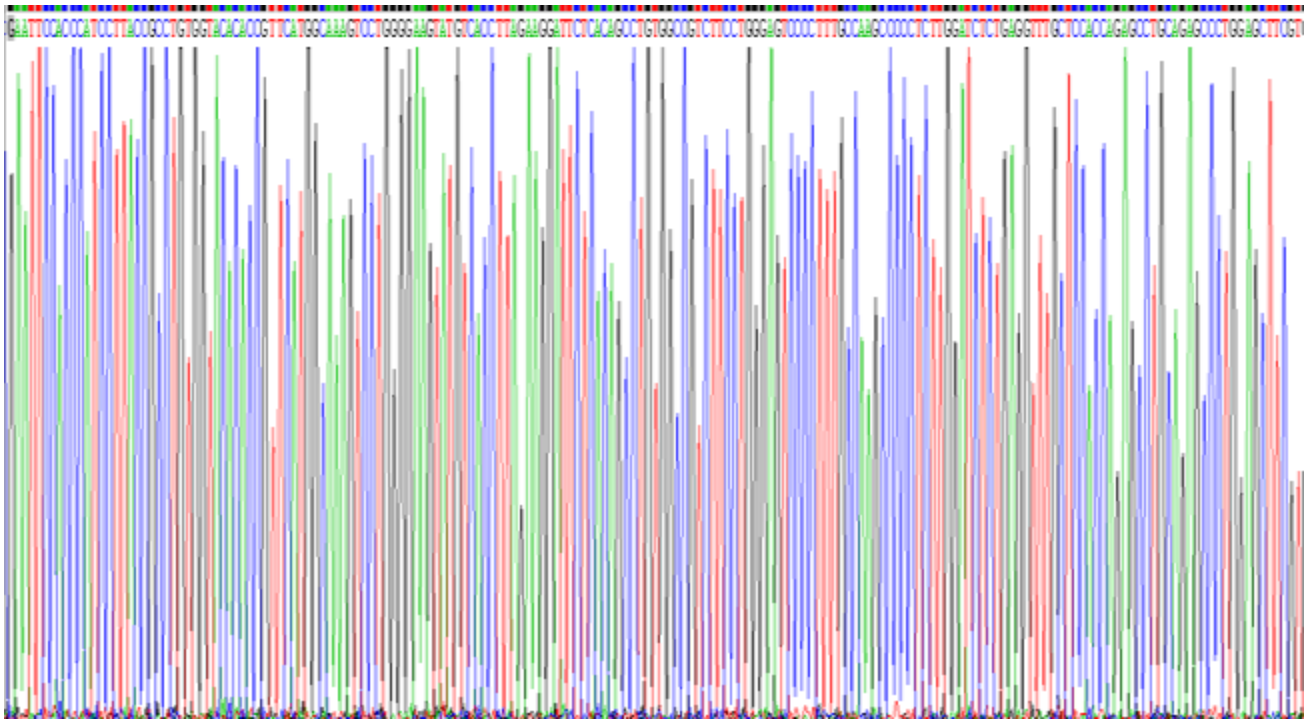


Figure. SDS-PAGE

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.