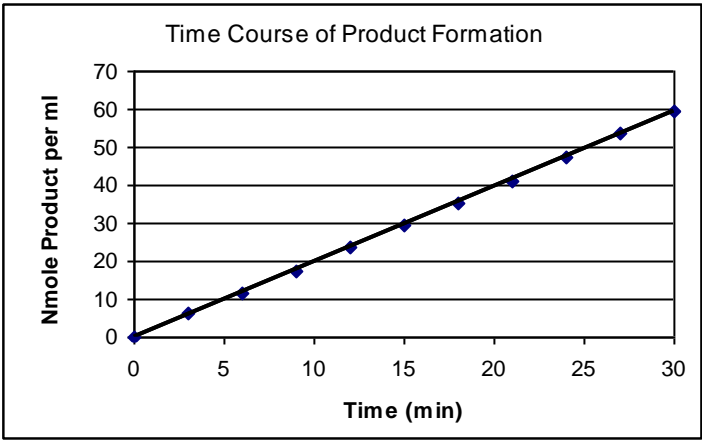


Discovery Life Sciences  
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# Supersomes™ Human Carboxylesterase 1c (CES1c)

Catalog Number	453321																
Quantity / Package	5 mg/mL in 0.5 mL																
Storage Conditions	NA																
Storage Temperature	-80°C																
Historical Data	 <p>The graph displays a linear relationship between time and product formation. The y-axis is labeled 'N mole Product per ml' and ranges from 0 to 70. The x-axis is labeled 'Time (min)' and ranges from 0 to 30. Data points are plotted at 0, 5, 10, 15, 20, 25, and 30 minutes, showing a steady increase in product formation over time.</p> <table border="1"><thead><tr><th>Time (min)</th><th>N mole Product per ml</th></tr></thead><tbody><tr><td>0</td><td>0</td></tr><tr><td>5</td><td>10</td></tr><tr><td>10</td><td>20</td></tr><tr><td>15</td><td>30</td></tr><tr><td>20</td><td>40</td></tr><tr><td>25</td><td>50</td></tr><tr><td>30</td><td>60</td></tr></tbody></table>	Time (min)	N mole Product per ml	0	0	5	10	10	20	15	30	20	40	25	50	30	60
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15	30																
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30	60																

## Additional Information

- The 4-nitrophenyl acetate activity is catalyzed by human carboxylesterase 1c (CES1c) which is expressed from human CES1c cDNA using a baculovirus expression system. Baculovirus infected insect cells (BTI-TN-5B1-4) were used to prepare these microsomes. A microsome preparation using wild-type virus (**Catalog No. 456200 or 456201**) should be used as a control for native activities.
- METHOD (4-nitrophenyl acetate assay): 0.016 mg CES1c was added into 1.0 mL 100mM potassium phosphate (pH 7.4, 37°C) containing 1 mM 4-nitrophenyl acetate substrate. The product formation was detected by monitoring the absorbance increase per minute at 400 nm and was normalized by subtracting the absorbance units/min by blank control (**Catalog No. 456200 or 456201**). The enzyme activity was quantitated by using an extinction coefficient of 13 (mM<sup>-1</sup>). Assay was conducted in triplicate.
- Metabolite production with 4-nitrophenyl acetate is linear for at least 30 minutes (see graph above). Other substrates may not exhibit similar linearity with respect to incubation time.

## Safety Information

- Safety assessment indicates this product is hazardous; refer to SDS [Safety Data Sheet] for safety information. Handle in accordance with good industrial hygiene and laboratory safety practices.

## Recommendation

- Aliquot to minimize freeze-thawing cycles. Less than 10% of the catalytic activity is lost after 10 freeze thaw cycles.
- Thaw rapidly in a 37°C water bath. Keep on ice until use.

## Hazard Warning

- The product was produced using baculovirus (*Autographa californica*) infected insect cells (BTI-TN-5B1-4). This virus is not known to be pathogenic to humans or other mammals.

**For Research Use Only. Not for use in diagnostic or therapeutic procedures.**

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# Supersomes™ Human Carboxylesterase 1c (CES1c)

Catalog Number	453321
Lot Number	2406274
Expiration Date	2034 August

## Assay Results

Enzyme Measured	Assay	Enzyme Activity	Unit
CES1c	4-Nitrophenyl Acetate Assay	1300	nmol/min/mg

*Alexa Silles*

Quality Assurance

08/29/2024

Date

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