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**Certificate of Analysis**  
**Certificate of Analysis & Research Application**

**Product** **Human CYP2C9 + Human P450 NADPH Reductase + Cytochrome b5**  
**Catalogue No** PB CYP 290010  
**Lot Number**

**Product Description**

Microsomes prepared from yeast (*S. cerevisiae*) containing human isozyme and human NADPH reductase expressed recombinantly. This product has distinct advantages over human liver microsomes, as only a single CYP P450 isozyme is expressed in combination with human NADPH reductase for in vitro drug metabolism. The absence of any other CYP isozyme thereby prevents the metabolism of the compound/substrate by any other CYP P450 isozymes or other classes of drug metabolizing enzymes.

**Applications**

Compound screening (Isozyme specific metabolism), inhibition studies and kinetic analysis,.

**Product Data**

Pack Size 1.0 nmol in 1 mL  
 Cytochrome P450 content 33.8 pmol.mg<sup>-1</sup>  
 Protein Concentration 29.5 mg.ml<sup>-1</sup>  
 Specific Activity 0.4 pmol Metabolite.min<sup>-1</sup>. pmol of CYP P450  
 CYP P450 Reductase Activity 3000 nmol Cytochrome reduced.min<sup>-1</sup>.mg protein

**Total Protein Content**

Total protein estimated by Bradford protein assay method with BSA Standard.

**Total Cytochrome P450 Yield**

Total P450 content estimated by CO different spectra with the double beam spectrophotometer.

**Reductase Activity**

Reductase activity measured based on a colorimetric assay that measures the reduction of cytochrome c by NADPH-cytochrome c reductase in the presence of NADPH. The reduction of cytochrome c results in the formation of distinct bands in the absorption spectrum and the increase in absorbance at 550 nm is measured with time.

**Product Use and Stability**

Microsomes are supplied in phosphate buffer (pH) containing water, glycerol, sucrose, EDTA, and PMSF which are unlikely to interfere with most assays.

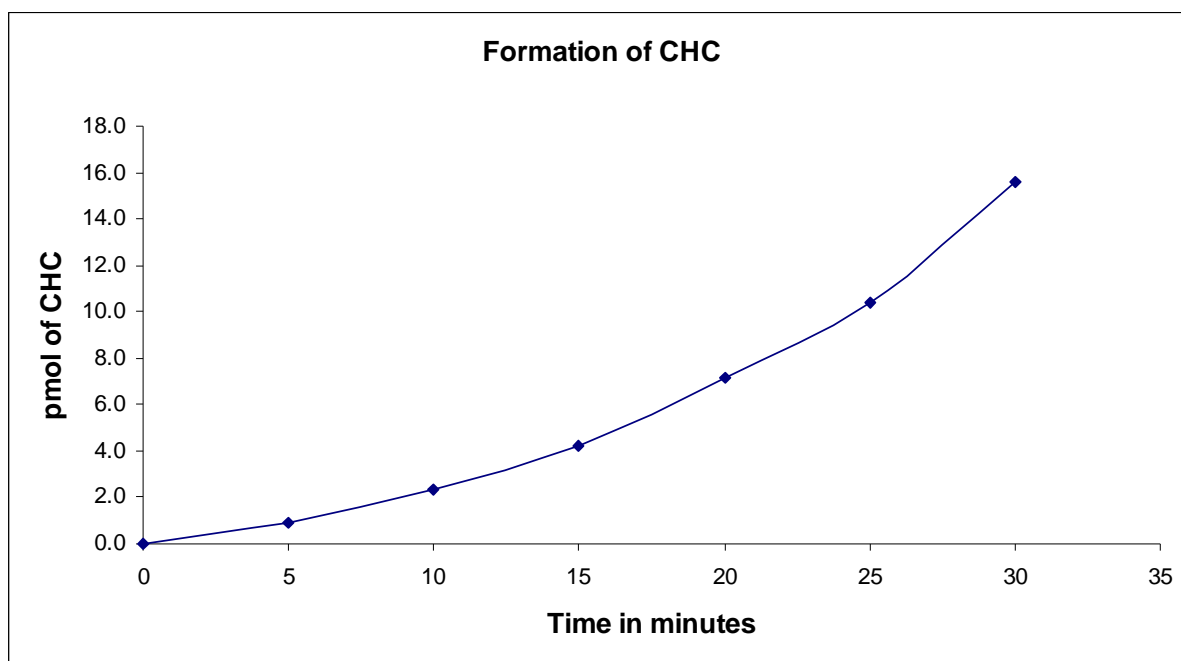
For best results & stability parameters, please thaw the microsomes in ice and make appropriate aliquots as per requirement and store at -80°C.

Microsomes are stable and active at -80°C for 12 months.

Repeated freeze thaws lead to instability and decrease in activity.

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**Specific Activity: The Conversion of BOMCC Substrate to 3-Cyano-7-hydroxycoumarin (CHC) product is measured over time. Values converted using a standard curve of 3-Cyano-7-hydroxycoumarin**



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**Safety**

Product is not suspected to contain any pathogenic and hazardous materials. Properties have not been investigated extensively.

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**Ordering information**

Please contact the personnel,

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**Contact and support**

To call, write, fax, or email us, visit the Premas Biotech home page, [www.premasbiotech.com/contact-us.aspx](http://www.premasbiotech.com/contact-us.aspx)

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**References**

(Omura and Sato,. 1964).