

H0610.R Lot No. 2310114

Human Kidney Microsomes

Mixed Gender, Pool of 4

0.5 mL at 10 mg protein / mL

Suspension medium: 250 mM sucrose

Enzyme Activities		Rate
NADPH-cytochrome c reductase	(nmol/mg protein/min)	32.3 ± 0.7
Lauric Acid 12-hydroxylation	(pmol/mg protein/min)	459 ± 39
Glucuronidation of 4-Methylumbelliferone	(nmol/mg protein/min)	132 ± 11

Values for enzyme activities were determined at a single substrate concentration and are mean ± standard deviation of three or more determinations.

To measure cytochrome P450 (CYP) activity, kidney microsomes (0.2 mg/mL) were incubated in triplicate at 37 ± 2°C for 10 minutes in potassium phosphate buffer (50 mM, pH 7.4), containing MgCl₂ (3.0 mM), EDTA (1.0 mM), NADP (1.0 mM), glucose-6-phosphate (5.0 mM), glucose-6-phosphate dehydrogenase (1 Unit/mL) and lauric acid (100 µM), at the final concentrations indicated. Metabolite formation was determined by validated LC-MS/MS methods with deuterated metabolites as internal standards.

To measure UDP-glucuronosyltransferase (UGT) activity, kidney microsomes (0.2 mg/mL) were incubated in triplicate at 37 ± 2°C for 10 minutes in Tris-HCl (100 mM, pH 7.7 at 37°C), CHAPS (0.5 mM), EDTA (1.0 mM), MgCl₂ (10 mM), D-saccharic acid 1,4-lactone (100 µM), uridine diphosphate-glucuronic acid (8.0 mM) and 4-methylumbelliferone (1 mM), at the final concentrations indicated. Metabolite formation was determined by validated LC-MS/MS methods with deuterated metabolites as internal standards.

Subcellular fractions were prepared from whole kidney.

**Store at -80°C**

CAUTION: This sample should be considered as a potential biohazard and universal precautions should be followed. Intended for *in vitro* use only.

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This data sheet serves as a Certificate of Analysis and has been approved by **Stephanie Helmstetter, Assistant Director.**

Signature and Date: Stephanie Helmstetter 19 April 2023

Donor Information

Sample	Gender	Age (Yrs)	Race	Cause of Death
28	M	56	Caucasian	Anoxia
33	M	52	Hispanic	Anoxia
34	F	55	Caucasian	Cerebrovascular accident
35	F	55	African American	Anoxia

Serology information

- Cytomegalovirus: All donors tested positive.
- RPR*: All donors tested negative.
- HIV, HTLV, HbsAg, and HCV**: All donors tested negative.

* Rapid Plasma Reagin

** Antibody to Human Immunodeficiency Virus, Antibody to Human T Cell Lymphotropic Virus, Hepatitis B Surface Antigen, Antibody to Hepatitis C Virus, respectively.

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