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Data Sheet
Certificate of Analysis

H0610.I Lot No. 2210287

Human Intestine Microsomes
Mixed Gender, Pool of 13
150 µL at 10 mg protein / mL
Suspension medium: 250 mM sucrose

Enzyme Activities		***Rate***
NADPH-cytochrome *c* reductase	(nmol/mg protein/min)	31.5 ± 0.9
Testosterone 6β-hydroxylation	(pmol/mg protein/min)	810 ± 21
Midazolam 1'-hydroxylation	(pmol/mg protein/min)	208 ± 3
Glucuronidation of 4-Methylumbelliferone	(nmol/mg protein/min)	4.36 ± 0.40

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

Aprotinin, Leupeptin, and Phenylmethylsulfonyl-fluoride were used in the preparation of these microsomes. Subcellular fractions were prepared from duodenal and jejunal tissue.

To measure cytochrome P450 (CYP) activity, intestine microsomes (0.1 mg/mL) were incubated in triplicate at 37 ± 2°C for 10 minutes in potassium phosphate buffer (50 mM, pH 7.4), containing $MgCl_2$ (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 testosterone (250 µM), at the final concentrations indicated. Metabolite formation was determined by validated LC-MS/MS methods with deuterated metabolites as internal standards.

To measure cytochrome P450 (CYP) activity, intestine microsomes (0.1 mg/mL) were incubated in triplicate at 37 ± 2°C for 10 minutes in potassium phosphate buffer (50 mM, pH 7.4), containing $MgCl_2$ (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 midazolam (30 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, intestine 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), $MgCl_2$ (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.

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.

This data sheet serves as a Certificate of Analysis and has been approved by Stephanie Helmstetter, Senior Manager.
Signature and Date: Stephanie Helmstetter 18 November 2022

Donor Information

Sample	Gender	Age (Yrs)	Race	Cause of Death
157	M	57	Caucasian	Anoxia
158	M	58	Caucasian	Head trauma
159	F	49	Caucasian	Cerebrovascular accident
160	M	54	Hispanic	Head trauma
162	M	65	Caucasian	Anoxia
163	M	28	African American	Anoxia
164	F	43	Caucasian	Anoxia
166	F	58	Caucasian	Cerebrovascular accident
167	M	64	Caucasian	Anoxia
168	F	53	African American	Head trauma
169	M	52	Caucasian	Head trauma
170	F	62	Caucasian	Head trauma
171	F	19	Caucasian	Head trauma

Serology information

- Cytomegalovirus: 8 donors tested positive.
- RPR*: All donors tested negative.
- HIV, HbsAg, and HCV**: All donors tested negative.

* Rapid Plasma Reagin

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

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