XENOTECH
A BioIVT Company

Data Sheet

H0610.P(S) Lot No. 2010205

Human Lung Microsomes (Smoker)
Mixed Gender, Pool of 5
0.5 mL at 10 mg protein / mL
Suspension medium: 250 mM sucrose

Enzyme Activities		***Rate***
NADPH-cytochrome *c* reductase	(nmol/mg protein/min)	15.8 ± 1.1
7-Ethoxyresorufin *O*-dealkylation	(pmol/mg protein/min)	3.61
Phenacetin *O*-dealkylation	(pmol/mg protein/min)	1.74 ± 0.25
Glucuronidation of 4-Methylumbelliferone	(nmol/mg protein/min)	<0.1

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, lung 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 Phenacetin (80 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, lung 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.

Donor Information

Sample	Gender	Age (Yrs)	Race	Cause of Death	Smoked within past 10 years?
20	M	62	African American	Cerebrovascular Accident	Yes
21	F	27	Caucasian	Cerebrovascular Accident	Yes
27	M	59	Caucasian	Cerebrovascular Accident	Yes
29	F	34	Caucasian	Anoxia	Yes
32	F	33	African American	Head Trauma	Yes

Serology information

- Cytomegalovirus: 3 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.

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.

Datasheet prepared 18 February 2021