XENOTECH
A BioIVT Company

Data Sheet

H0610.P(NS) Lot No. 1310116

Human Lung Microsomes (Non-Smoker)
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)	27.8 ± 0.8
7-Ethoxyresorufin *O*-dealkylation	(pmol/mg protein/min)	1.46
Phenacetin *O*-dealkylation	(pmol/mg protein/min)	<0.5
Glucuronidation of 4-Methylumbelliferone	(nmol/mg protein/min)	<0.1

Characterization is performed when the first lot of a product from a given subcellular fraction (*e.g., S9*) is prepared. Subsequent lots are subject to a verification test only. 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 (0.075 mg/mL) were incubated in triplicate at 37 ± 1°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 7-ethoxyresorufin (10 µM), at the final concentrations indicated. Metabolite formation was determined fluorimetrically.

To measure cytochrome P450 (CYP) activity, lung microsomes (0.1 mg/mL) were incubated in triplicate at 37 ± 1°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 ± 1°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?
9	M	28	Caucasian	Drug overdose	No
14	F	12	Caucasian	Anoxia	No
15	M	65	Caucasian	Cerebrovascular accident	No
17	F	37	Caucasian	Cerebrovascular accident	No

Serology information

- Cytomegalovirus: All donors tested negative
- RPR, 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.

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 30 July 2013