

H0610.PS9(S) Lot No. 1410121

Human Lung S9 Fraction (Smoker)

Mixed Gender, Pool of 4

1.0 mL at 5 mg protein / mL

Suspension medium: 50 mM Tris-HCl, 150 mM KCl, 2 mM EDTA

Enzyme Activities		Rate
NADPH-cytochrome c reductase	(nmol/mg protein/min)	5.41 ± 0.24
7-Ethoxyresorufin O-dealkylation	(pmol/mg protein/min)	3.73 ± 0.37
Phenacetin O-dealkylation	(pmol/mg protein/min)	4.72 ± 0.28
Glucuronidation of 4-Methylumbelliferone	(nmol/mg protein/min)	< 0.01

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 S9 samples (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 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 7-ethoxyresorufin (10 µM), at the final concentrations indicated. Metabolite formation was determined fluorimetrically.

To measure cytochrome P450 (CYP) activity, lung S9 samples (0.2 mg/mL) were incubated in triplicate at 37 ± 1°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 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 S9 samples (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), 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.

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

Serology information

- Cytomegalovirus: 2 donors tested positive.
- 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.

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