

H1000.S9 Lot No. 1210268

Human Liver S9

Male, Pool of 10

1.0 mL at 20 mg protein / mL

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

Specific Content and Enzyme Activities		Content / Rate
Cytochrome P450 content	(nmol/mg protein)	0.130
Cytochrome b ₅ content	(nmol/mg protein)	0.089
7-Ethoxycoumarin O-dealkylation	(pmol/mg protein/min)	204 ± 7
Glucuronidation of 4-methylumbelliferone	(nmol/mg protein/min)	28.3 ± 1.1
CDNB ^a	(nmol/mg protein/min)	542 ± 7

^a 1-Chloro-2,4-dinitrobenzene-glutathione conjugation by glutathione S-transferase.

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, liver 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 7-ethoxycoumarin (500 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, liver S9 samples (0.1 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.

To measure glutathione S-transferase activity (GST), liver S9 samples (5 to 50 µg/mL) were incubated in triplicate at 37 ± 1°C for 10 minutes in potassium phosphate buffer (100 mM, pH 6.5), glutathione (1 mM), and CDNB (1 mM), at the final concentrations indicated. Reaction rates are determined by photometric kinetic measurements at 340 nm.

Donor Information

Gender:	Male (10)
Age:	26-79 years of age
Race:	Caucasian (7), African American (2), Hispanic (1)
Cause of Death:	Anoxia (3), Head trauma (1), Cerebrovascular accident (6)
Cytomegalovirus (CMV):	Positive (7), Negative (2), Unknown (1)
Human Immunodeficiency Virus (HIV):	Negative (10)
Hepatitis B Surface Antigen (HbsAg):	Negative (10)
Antibody to Hepatitis C Virus (HCV):	Negative (10)



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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