

Human Liver S9 Fraction – Pool of 50

Lot No. 1610015

Human Liver S9 Fraction

Mixed Gender, Pool of 50

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

H0610.S9 0.5 mL at 20 mg/mL

H0620.S9 1.0 mL at 20 mg/mL

H0630.S9 5.0 mL at 20 mg/mL

H0640.S9 50.0 mL at 20 mg/mL

Specific Content and Enzyme Activities		Content / Rate
Cytochrome P450 content	(nmol/mg protein)	0.094
Cytochrome b ₅ content	(nmol/mg protein)	0.085
7-Ethoxycoumarin O-dealkylation	(pmol/mg protein/min)	168 ± 5
Glucuronidation of 4-methylumbelliferone	(nmol/mg protein/min)	19.8 ± 0.1
CDNB ^a	(nmol/mg protein/min)	588 ± 16

^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.



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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Datasheet prepared 2 June 2016

Donor Information

Sample	Gender	Age (Yrs)	Race	Cause of Death
289	F	60	Caucasian	Cerebrovascular Accident
397	M	60	Caucasian	Anoxia
410	F	11	Caucasian	Head Trauma
415	M	56	Caucasian	Myocardial Infarction
424	F	39	Caucasian	Cerebrovascular Accident
428	F	57	Caucasian	Head Trauma
431	M	40	Hispanic	Head Trauma
442	M	49	Caucasian	Gun Shot Wound
445	F	44	Asian	Cerebrovascular Accident
455	F	37	Caucasian	Cerebrovascular Accident
457	M	43	African American	Anoxia
458	M	48	Caucasian	Head Trauma
467	M	33	Caucasian	Anoxia
471	M	49	Caucasian	Anoxia
472	M	56	Caucasian	Anoxia
481	M	40	Caucasian	Overdose
485	M	10	Caucasian	Anoxia
486	F	49	Caucasian	Anoxia
487	M	48	Caucasian	Head Trauma
489	M	46	Caucasian	Cerebrovascular Accident
493	F	64	Caucasian	Anoxia
500	F	51	Caucasian	Head Trauma
504	M	60	Caucasian	Cerebrovascular Accident
508	F	58	Caucasian	Cerebrovascular Accident
521	M	56	Caucasian	Anoxia
529	M	26	Caucasian	Head Trauma
543	F	58	Caucasian	Anoxia
547	M	71	Caucasian	Cerebrovascular Accident
562	M	65	Caucasian	Cerebrovascular Accident
570	M	49	Caucasian	Cerebrovascular Accident
596	F	17	Caucasian	Auto Accident
675	M	5	Caucasian	Anoxia
689	F	5	Caucasian	Head Trauma
723	F	57	Caucasian	Cerebrovascular Accident
724	M	61	Caucasian	Cerebrovascular Accident
725	F	54	Caucasian	Cerebrovascular Accident
727	F	60	Caucasian	Anoxia
743	M	35	Caucasian	Cerebrovascular Accident
751	M	29	Caucasian	Anoxia
769	M	58	Caucasian	Head Trauma
779	F	20	Caucasian	Head Trauma
786	F	27	Caucasian	Head Trauma
799	M	73	Caucasian	Cerebrovascular Accident
800	F	67	Caucasian	Cerebrovascular Accident

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Donor Information

Sample	Gender	Age (Yrs)	Race	Cause of Death
802	M	33	Caucasian	Cerebrovascular Accident
816	M	55	Hispanic	Head Trauma
830	M	65	Caucasian	Cerebrovascular Accident
832	F	58	Caucasian	Cerebrovascular Accident
833	M	48	Hispanic	Myocardial Infarction
836	M	39	Caucasian	Head Trauma

Serology information

- Antibody to Cytomegalovirus: 28 of 50 donors tested positive.
- RPR*: 50 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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