

Human Liver S9 Fraction – Pool of 50

Lot No. 2210059

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)	0.155
Cytochrome b ₅ content	(nmol/mg protein)	0.080
7-Ethoxycoumarin O-dealkylation	(pmol/mg protein/min)	203 ± 19
Glucuronidation of 4-methylumbelliferone	(nmol/mg protein/min)	22.8 ± 1.2
CDNB ^a	(nmol/mg protein/min)	601 ± 9

^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 ± 2°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 ± 2°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 ± 2°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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This data sheet serves as a Certificate of Analysis and has been approved by Stephanie Helmstetter, Senior Manager.

Signature and Date: Stephanie Helmstetter 24 February 2022

Donor Information

Sample	Gender	Age (Yrs)	Race	Cause of Death
229	M	62	Caucasian	Cerebrovascular Accident
231	F	61	Caucasian	Cerebrovascular Accident
247	M	57	Caucasian	Cerebrovascular Accident
264	M	44	Hispanic	Anoxia
279	F	49	Caucasian	Cerebrovascular Accident
298	M	42	Caucasian	Cerebrovascular Accident
321	M	58	Caucasian	Cerebrovascular Accident
343	M	26	Caucasian	Cerebrovascular Accident
353	F	63	Caucasian	Head Trauma
381	F	58	Caucasian	Cerebrovascular Accident
382	F	19	Caucasian	Head Trauma
387	M	60	Caucasian	Cerebrovascular Accident
409	F	63	Hispanic	Cerebrovascular Accident
422	M	69	Caucasian	Cerebrovascular Accident
426	F	51	Caucasian	Cerebrovascular Accident
429	M	66	Caucasian	Cerebrovascular Accident
430	M	59	Caucasian	Cerebrovascular Accident
431	M	40	Hispanic	Head Trauma
433	M	47	Caucasian	Head Trauma
434	M	74	Caucasian	Cerebrovascular Accident
442	M	49	Caucasian	Head Trauma
447	F	54	Caucasian	Anoxia
448	F	58	Caucasian	Anoxia
452	M	29	Caucasian	Head Trauma
453	F	25	Caucasian	Anoxia
455	F	37	Caucasian	Cerebrovascular Accident
456	F	58	Caucasian	Cerebrovascular Accident
457	M	43	African American	Anoxia
461	F	74	Caucasian	Cerebrovascular Accident
463	F	58	Caucasian	Anoxia
465	M	50	Hispanic	Anoxia
466	M	48	Caucasian	Anoxia
472	M	56	Caucasian	Anoxia
473	F	47	Caucasian	Cerebrovascular Accident
479	M	65	Caucasian	Anoxia
481	F	40	Caucasian	Anoxia
483	M	61	Hispanic	Cerebrovascular Accident
484	F	55	Caucasian	Cerebrovascular Accident
489	M	46	Caucasian	Cerebrovascular Accident
490	F	60	Caucasian	Cerebrovascular Accident
493	F	64	Caucasian	Anoxia
496	F	58	Caucasian	Cerebrovascular Accident
504	M	60	Caucasian	Cerebrovascular Accident
509	M	32	Caucasian	Head Trauma
511	M	44	Caucasian	Cerebrovascular Accident

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Donor Information

Sample	Gender	Age (Yrs)	Race	Cause of Death
535	F	49	Caucasian	Cerebrovascular Accident
548	F	61	Caucasian	Anoxia
569	M	60	Caucasian	Anoxia
740	F	76	Caucasian	Cerebrovascular Accident
776	F	4	African American	Cerebrovascular Accident

Serology information

- Antibody to Cytomegalovirus: 23 of 50 donors tested positive.
- RPR*: 47 donors tested negative and 3 donors were not determined
- 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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