XENOTECH
A BioIVT Company

Data Sheet
Certificate of Analysis

HHNSH Lot No. 2210150

Human Liver Microsomes – NASH Donor Pool
Untreated, Mixed Gender, Pool of 5
0.5 mL at 20 mg protein / mL
Suspension medium: 250 mM sucrose

Enzyme Activities

Enzyme	Marker Substrate Reaction	[S] (µM)	Rate (pmol/mg protein/min)
CYP1A2	Phenacetin *O*-dealkylation	80	268 ± 18
CYP2A6	Coumarin 7-hydroxylation	50	586 ± 39
CYP2B6	Bupropion hydroxylation	500	97.9 ± 5.1
CYP2C8	Amodiaquine *N*-dealkylation	20	1200 ± 100
CYP2C9	Diclofenac 4'-hydroxylation	100	2920 ± 140
CYP2C19	*S*-Mephenytoin 4'-hydroxylation	400	24.3 ± 2.3
CYP2D6	Dextromethorphan *O*-demethylation	80	164 ± 11
CYP2E1	Chlorzoxazone 6-hydroxylation	500	2420 ± 90
CYP3A4/5	Testosterone 6β-hydroxylation	250	2190 ± 110
CYP3A4/5	Midazolam 1'-hydroxylation	30	454 ± 19
CYP4A11	Lauric acid 12-hydroxylation	100	1570 ± 70

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 microsomes (50 µg/mL) were incubated in triplicate at 37 ± 2°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 marker substrate, 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
958	M	47	Caucasian	Cerebrovascular accident
1027	F	63	Caucasian	Cerebrovascular accident
1028	F	51	African American	Cerebrovascular accident
1060	M	49	Hispanic	Cerebrovascular accident
1069	M	39	Caucasian	Cerebrovascular accident

Serology information

- Cytomegalovirus: 4 of 5 donors tested positive.
- RPR*: All 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.

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.

This data sheet serves as a Certificate of Analysis and has been approved by Stephanie Helmstetter, Senior Manager.
Signature and Date: Stephanie Helmstetter 12 July 2022