

Product Characterization Sheet

HH1034/HH1038

Human Hepatocytes, Catalog Number 82001



Classification

Suspension	X
Metabolism	X
Inducible	-
CDFDA Efflux	-
Long Term Culture	-
Confluency	-
Number of Donors	1

Post-thaw

Viability	86 %
Yield	5.2 million

Donor Demographics

Gender	Male
Age	49
Race	Caucasian
Cause of Death	CVA-ICH
BMI	29.9
Smoking	No
Alcohol	Yes
Substance	No
Medical Background	HTN
Serological Data	CMV+
HIV	Negative

Characterization: Hepatocytes were thawed using 37°C UCRM™ and centrifuged for 10 minutes at 100g. After removing the supernatant, hepatocytes were re-suspended in 4°C HQM™ and counted for viability and yield using the Trypan Blue exclusion method.

Drug Metabolism Activity

Enzyme	Metabolite Measured	Activity pmol/million cells/min
CYP1A2	Acetaminophen	96
CYP2A6	Coumarin	2.2
CYP2B6	Hydroxybupropion	267
CYP2C8	6 α -hydroxypaclitaxel	4.8
CYP2C9	4-hydroxydiclofenac	115.8
CYP2C19	4'-hydroxy mephenytoin	3.1
CYP2D6	Dextrophan	3.2
CYP2E1	6-hydroxychlorzoxazone	42.4
CYP3A4	1-hydroxymidazolam	57.8
	6 β -hydroxy testosterone	733.5
ECOD	7-Hydroxycoumarin	285.8
UGT	7-Hydroxycoumarin glucuronide	507
Sulfotransferase	7-Hydroxycoumarin sulfate	18.8

CYP450 Activity Assessment: The hepatocytes were incubated at a cell density of 0.5 million hepatocytes/mL in a 48-well plate (125,000 hepatocytes/well) for the designated time durations with isoform-selective substrates. The metabolites were identified and analyzed using API 3000 mass spectrometer connected to Agilent 1100 series HPLC.

IVAL cell culture media and tissue culture plates used in this evaluation:

- Recovery of thawed hepatocytes - Cat. No. 81015 - UCRM™ Universal Cryopreservation Recovery Media, 50 mL tube
- Suspension and incubation of hepatocytes - Cat. No. 81039/81040 - HQM™ Hepatocyte Incubation Media, 50 mL tube/500 mL bottle

To inquire about our products and services or for technical questions please contact:

- In Vitro ADMET Laboratories by phone at +1 (866) 458-1094 or +1 (410) 869-9037 or email at info@invitroadmet.com