

Product Characterization Sheet

HH1037

Human Hepatocytes, Catalog Number 82001



Classification

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

Donor Demographics

Gender	Male
Age	45
Race	Caucasian
Cause of Death	CVA-ICH
BMI	25.5
Smoking	Yes
Alcohol	Yes
Substance	Yes
Medical Background	HTN
Serological Data	CMV+
HIV	Negative

Post-thaw

Viability	88 %
Yield	3.3 million

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	17.3
CYP2A6	Coumarin	1.2
CYP2B6	Hydroxybupropion	2.1
CYP2C8	6 α -hydroxypaclitaxel	2.8
CYP2C9	4-hydroxydiclofenac	20.7
CYP2C19	4'-hydroxy mephenytoin	1.5
CYP2D6	Dextrophan	3.4
CYP2E1	6-hydroxychlorzoxazone	8.7
CYP3A4	1-hydroxymidazolam	11.0
	6 β -hydroxy testosterone	203.3
ECOD	7-Hydroxycoumarin	6.9
UGT	7-Hydroxycoumarin glucuronide	35.8
Sulfotransferase	7-Hydroxycoumarin sulfate	4.8

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