

Product Characterization Sheet

PHH8003

Human Hepatocytes, Catalog Number 82034



Classification

Suspension	X
Metabolism	X
Inducible	-
CDFDA Efflux	-
Long Term Culture	-
Confluency	-
Number of Donors	10

Donor Demographics

Gender	Male and Female
Age	15 - 65
Race	Mixed
Cause of Death	N/A
BMI	20.0 – 37.0
Smoking	Mixed
Alcohol	Mixed
Substance	Mixed
Medical Background	N/A
Serological Data	Mixed
HIV	Negative

Post-thaw

Viability	84 %
Yield	7.4 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	40.9 ± 3.1
CYP2A6	Coumarin	-
CYP2B6	Hydroxybupropion	13.3 ± 0.2
CYP2C8	6 α -hydroxypaclitaxel	14.7 ± 0.1
CYP2C9	4-hydroxydiclofenac	113.3 ± 9.1
CYP2C19	4'-hydroxymephenytoin	17.1 ± 2.8
CYP2D6	Dextrorphan	9.4 ± 0.4
CYP2E1	6-hydroxychlorzoxazone	56.3 ± 4.3
CYP3A4	1-hydroxymidazolam	-
	6 β -hydroxy testosterone	379.7 ± 12.9
ECOD	7-Hydroxycoumarin	46.8 ± 3.7
UGT	7-Hydroxycoumarin glucuronide	221.9 ± 10.4
Sulfotransferase	7-Hydroxycoumarin sulfate	14.0 ± 0.31

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