

Product Characterization Sheet

031-218

Rat Hepatocytes, Catalog Number 82016



Classification

Plateability	Suspension
Number of days plateable	NA
Confluency	NA
P450 Inducibility	NA
Number of donors	3

Donor Demographics

Gender	Male
Strain	Sprague Dawley
Age	7-10 weeks
Weight	200-250 g
Infectious diseases	Negative

Post-thaw Viability and Yield

Viability	76 %
Yield	2.6 million

Characterization: Hepatocytes were thawed using 37°C UCRM™ and centrifuged for 5 minutes at 100g. After removing the supernatant, hepatocytes were re-suspended in HQM™ and counted for viability and yield using the Trypan Blue exclusion method.

Drug Metabolism Activity

Drug Metabolizing Enzyme	Substrate (μM)	Incubation Time (minutes)	Metabolite Quantified	Activity (pmol/minute/million cells)
ECOD	7-Ethoxycoumarin (100)	30	7-Hydroxycoumarin	237.41 ± 8.59
UGT	7-Hydroxycoumarin (100)	30	7-Hydroxycoumarin glucuronide	1232.18 ± 88.46
Sulfotransferase	7-Hydroxycoumarin (100)	30	7-Hydroxycoumarin sulfate	43.48 ± 3.86

CYP450 Activity Assessment: The hepatocytes were incubated at a cell density of 0.5 million cells/mL in a 12-well plate (500,000 hepatocytes/well) for the designated time durations with isoform-selective substrates. The metabolites were identified and analyzed using LC-MS/MS.

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