

Product Characterization Sheet

MCM101

Mouse Hepatocytes, Catalog Number 82021



Classification

Plateability	Plateable
Number of days plateable	3
Confluency	85 %
P450 Inducibility	NA
Number of donors	6

Lot Demographics

Gender	Male
Strain	CD-1
Age	8-12 weeks
Weight	30-35 g
Infectious diseases	Negative

Post-thaw Viability and Yield

Viability	91 %
Yield	5.3 million

Characterization: Hepatocytes were thawed using 37°C UCRM™ and centrifuged for 5 minutes at 50g. After removing the supernatant, hepatocytes were re-suspended in IPM-A™ and counted for viability and yield using the Trypan Blue exclusion method. Cells were plated at a density of 0.4 million cells per mL in a hand-coated collagen plate and allowed to attach 4-6 hours prior to a Matrigel® overlay.

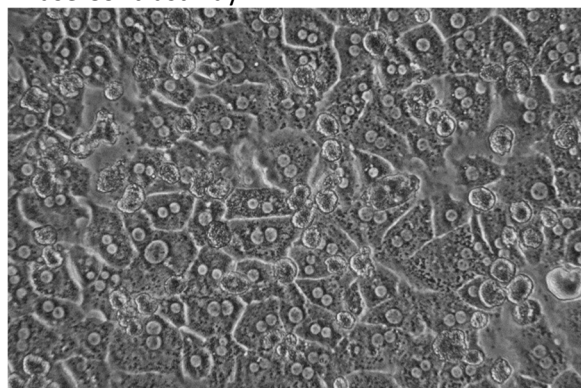
Drug Metabolism Activity

Drug Metabolizing Enzyme	Substrate (µM)	Incubation Time (minutes)	Metabolite Quantified	Activity (pmol/minute/million cells)
ECOD	7-Ethoxycoumarin (100)	30	7-Hydroxycoumarin	574 ± 18
UGT	7-Hydroxycoumarin (100)	30	7-Hydroxycoumarin glucuronide	1193 ± 207
Sulfotransferase	7-Hydroxycoumarin (100)	30	7-Hydroxycoumarin sulfate	95 ± 15.4

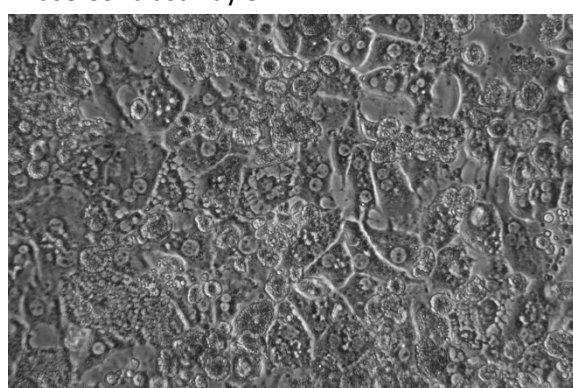
CYP450 Activity Assessment: The hepatocytes were incubated at a cell density of 0.5 million hepatocytes/mL in a 12-well plate (500,000 hepatocytes/well) for the designated time durations with isoform-selective substrates. The metabolites were identified and analyzed using LC-MS/MS.

Photomicrographs (100X, Phase Contrast)

Phase Contrast Day 2



Phase Contrast Day 3



Monolayer Comments: MCM101 has a fair attachment efficiency at 60 % and continues to develop a monolayer confluency of 85 % by day 2. This lot exhibits good morphology and remains intact for 3 days in culture and begins to deteriorate. This lot is not recommended past day 3.

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
- Initial plating of hepatocytes - Cat. No. 81035 – IPM-A™ IVAL Plating Media A, 50 mL tube
- Sandwich culture with 0.25 mg Matrigel® - Cat. No. 81037/81038 - RHIM™ Rodent Hepatocyte Induction Media, 50 mL tube/500 mL bottle
- Suspension and incubation of hepatocytes - Cat. No. 81039/81040 - HQM™ Hepatocyte Incubation Media, 50 mL tube/500 mL bottle
- Collagen coated plates - Cat. No. 71006 - CellAffix™ 24-well Collagen Hand Coated tissue culture plate, 5 plates per pack

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