

# Product Characterization Sheet

## 141-240

Mouse Hepatocytes, Catalog Number 82014



### Classification

|                          |            |
|--------------------------|------------|
| Plateability             | Suspension |
| Number of days plateable | NA         |
| Confluency               | NA         |
| P450 Inducibility        | NA         |
| Number of donors         | 10         |

### Donor Demographics

|                     |            |
|---------------------|------------|
| Gender              | Male       |
| Strain              | C57-B16    |
| Age                 | 8-12 weeks |
| Weight              | 25-30 g    |
| Infectious diseases | Negative   |

### Post-thaw Viability and Yield

|           |             |
|-----------|-------------|
| Viability | 95 %        |
| Yield     | 4.1 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 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             | 331 ± 40                             |
| UGT                      | 7-Hydroxycoumarin (100) | 30                        | 7-Hydroxycoumarin glucuronide | 931 ± 119                            |
| Sulfotransferase         | 7-Hydroxycoumarin (100) | 30                        | 7-Hydroxycoumarin sulfate     | 113 ± 7.5                            |

**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:

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