



METABOLIC STABILITY IN HEPATOCYTES

Metabolic stability in cryopreserved hepatocytes from human or preclinical species

Metabolic stability analysis in hepatocytes helps identify compounds that are cleared by oxidative and non-oxidative metabolic pathways.^[1] BD Biosciences ten donor pool provides testing with enzyme activity levels close to an average human. Only BD GentestSM Contract Research Services delivers a combination of industry leading proprietary products, advanced technology, expert guidance from renowned study directors and reliable, submission ready results. Together, these elements provide you with the most rapid path to more sound decision making in your drug discovery endeavors.

The **most rapid** path to more sound decision making.

HEPATOCYTES UNCOVER MULTIPLE ROUTES OF HEPATIC CLEARANCE

Hepatocytes represent the most robust in vitro system to test hepatic clearance. In contrast to microsomes or S9, all phase 1 and phase 2 enzymes, cofactors, and uptake and efflux transporter systems are present.

MULTI-DONOR POOLS MORE CLOSELY REPRESENT THE AVERAGE HUMAN

Assays feature a 10-donor pool to ensure enzyme activities represent close to that of the average human. Donor selection is at least 30% of one gender and adults (≥18 years).

[More on reverse](#)

KEY FEATURES

- Features a carefully selected, mixed gender 10-human donor pool
- Cryopreserved hepatocytes are pooled and used after one thaw, reducing risk of damage from repeat cryopreservation
- Quantitation using LC/MS/MS
- Results provided for human and preclinical species
- Results delivered with a 1-3 week turnaround time

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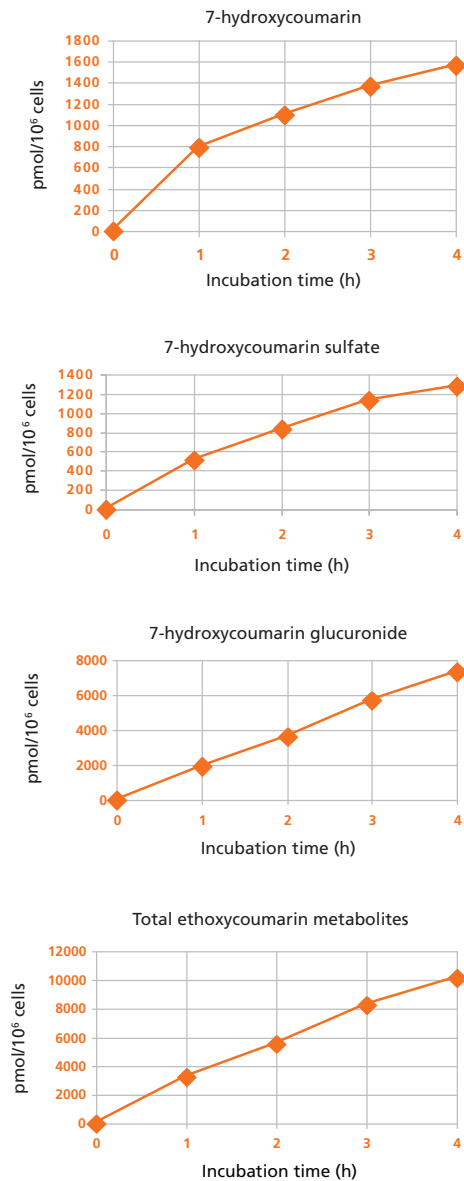
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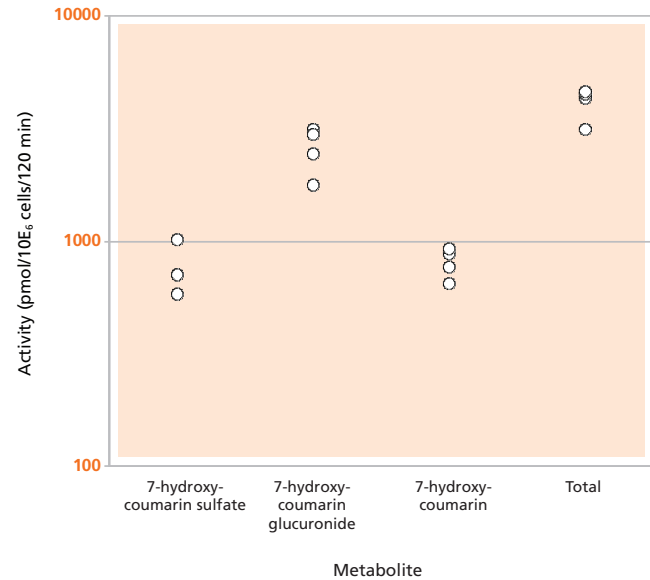
SPECIFICATIONS:

TIME COURSE OF ETHOXYCOUMARIN METABOLISM IN HUMAN CRYOPRESERVED HEPATOCYTES



Time course of ethoxycoumarin metabolism in a 10-donor pool of cryopreserved hepatocytes showing the expected linearity in formation of metabolites.

INTERDAY REPRODUCIBILITY OF ETHOXYCOUMARIN METABOLISM



Metabolism of 50 μ M ethoxycoumarin by a 10-donor pool of human cryopreserved hepatocytes. Values represent means of duplicate determinations on 4 independent days.

STUDY DESIGN SUMMARY

TEST SYSTEM:	Cryopreserved hepatocytes.
CELL CONCENTRATION:	0.5 x 10 ⁶ cells per mL.
POSITIVE CONTROL:	Ethoxycoumarin.
NEGATIVE CONTROLS:	0 min and no hepatocytes (0 and last time point).
TIME POINTS:	5, including zero.
ANALYTICAL:	LC/MS/MS.
REPLICATES:	2
DATA REPORT:	Cell viability, percent parent loss, half-life, intrinsic clearance.

References

[1] Sinz MW (2008) In vitro metabolism: Hepatocytes. In, Handbook of Drug Metabolism Pearson PG and Wienkers LC (Eds). pp. 465-492.