

CryostaX

Single Freeze Plateable Cryopreserved Human Hepatocytes

HP1000.HP+ Lot No. H1419

Cryopreserved Human Hepatocytes
Human, Male, Individual

Assured Minimum Yield: 5.0×10^6 cells per vial
Viability: 92%

Yield and viability are based on experiments performed at XenoTech using XenoTech's thawing protocol and OptiThaw Hepatocyte Kit.

Enzyme	Marker Substrate Reaction	[S] (μ M)	Rate (pmol/million cells/min)
CYP1A2	Phenacetin O-dealkylation	100	19.6 \pm 0.9
CYP2A6	Coumarin 7-hydroxylation	50	23.1 \pm 2.2
CYP2B6	Bupropion hydroxylation	500	43.9 \pm 1.2
CYP2C8	Amodiaquine N-dealkylation	20	413 \pm 92
CYP2C9	Diclofenac 4'-hydroxylation	100	383 \pm 71
CYP2C19	S-Mephenytoin 4'-hydroxylation	400	15.6 \pm 0.7
CYP2D6	Dextromethorphan O-demethylation	80	46.6 \pm 5.9
CYP2E1	Chlorzoxazone 6-hydroxylation	500	50.7 \pm 1.3
CYP3A4/5	Testosterone 6 β -hydroxylation	250	63.8 \pm 4.8
CYP3A4/5	Midazolam 1'-hydroxylation	30	10.1 \pm 0.4
UGT	7-Hydroxycoumarin glucuronidation	100	630 \pm 43
SULT	7-Hydroxycoumarin sulfonation	100	15.9 \pm 0.6

Values for enzyme activities were determined at a single substrate concentration and are mean \pm standard deviation of three or more determinations.

To measure cytochrome P450 (CYP), UDP-glucuronosyl transferase (UGT) and sulfotransferase (SULT) activities, hepatocytes (1×10^6 /mL) in suspension were incubated in triplicate at $37 \pm 2^\circ\text{C}$ for 30 minutes in OptiIncubate and marker substrate, at the final concentrations indicated. Metabolite formation was determined by validated LC-MS/MS methods with deuterated metabolites as internal standards.

Donor Information

Gender:	Male
Age:	21 years of age
Race:	Caucasian
Cause of Death:	Head Trauma
Antibody to Cytomegalovirus (CMV):	Positive
All donors tested negative for Human Immunodeficiency Virus (HIV), Hepatitis B Surface Antigen (HBsAg), Hepatitis C Virus, and Rapid Plasma Reagin.	



Store in liquid nitrogen, vapor phase

CAUTION: This sample should be considered as a potential biohazard and universal precautions should be followed. Intended for *in vitro* use only.

These data were generated by and are the property of XenoTech. These data are not to be reproduced, published or distributed without the express written consent of XenoTech.

Datasheet prepared 19 May 2021

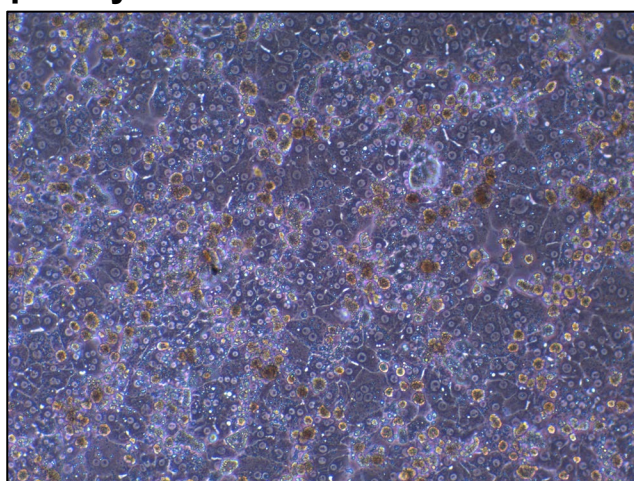
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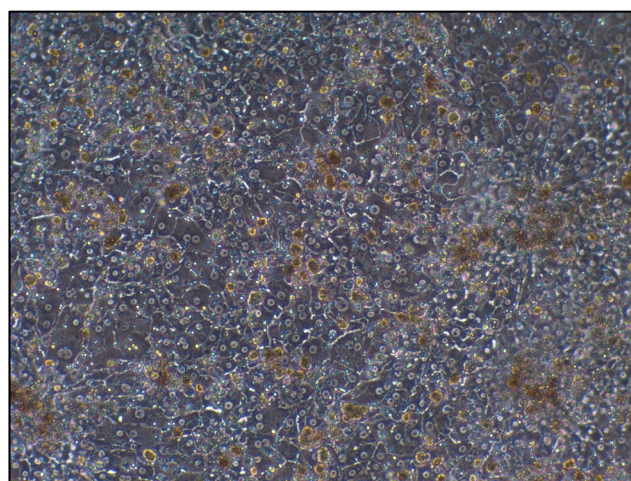
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Hepatocyte Cell Culture



Photomicrograph (100x) of H1419 Day 2 of culture



Photomicrograph (100x) of H1419 incubation day

Plate Format	Recommended Seeding	
	Density (million cells/mL)	Recommended Seeding/ Feeding Volume Per Well
6-well format	1.4	1.7 mL
12-well format	1.4	650 μ L
24-well format	1.4	330 μ L
48-well format	0.75	200 μ L
96-well format	0.75	75 μ L

Induction Data

Enzyme	Inducer	mRNA Fold Induction	Marker Substrate Reaction	Enzymatic Fold Induction
CYP1A2	Omeprazole (50 μ M)	10.8	Phenacetin O-dealkylation	20.1
CYP2B6	Phenobarbital (750 μ M)	5.9	Bupropion hydroxylation	3.5
CYP2B6	CITCO (100 nM)	10.0	Bupropion hydroxylation	5.6
CYP3A4	Rifampin (20 μ M)	6.7	Midazolam 1'-hydroxylation	5.9