

CERTIFICATE OF ANALYSIS

CRYOPLATEABLE HUMAN HEPATOCYTES

FOR RESEARCH USE ONLY. CAUTION: Not intended for human diagnostic or therapeutic uses. Users should treat all human cells as potential pathogens. Wear protective clothing and eyewear. Practice appropriate disposal techniques for potentially pathogenic or bio-hazardous materials.

PRODUCT INFORMA	TION:		
Product name:		Lot identifier:	
Post-thaw viability of ≥	%	Post-thaw confluency ≥% c	on day 5
Contains a minimum of	x 10 ⁶ viable cells/mL		
DONOR DEMOGRAP	PHICS:		
Sex: Age:	BMI: Ethnicity:	COD:	
Donor negative for: HIV, HCV	, HBV, RPR	Culture negative for: Gram+, Gran	n-, Mycoplasm, Fungi
PLATING:			
Recommended seeding dens	sity (million cells/mL):	Recommended thaw medium:	
Lot	hours post-plating	Lot	hours post-plating*

METABOLIC ACTIVITY

ENZYME	SUBSTRATE	CONCENTRATION (μM)	ENZYME ACTIVITY (pmole/min/million cells)		
CYP1A2	Phenacetin	100			
CYP2B6	Bupropion	500			
CYP2C8	Amodiaquine	20			

METABOLIC ACTIVITY (cont.)

ENZYME	SUBSTRATE	CONCENTRATION (μM)	ENZYME ACTIVITY (pmole/min/million cells)	
CYP2C9	Diclofenac	25		
CYP2C19	S-mephenytoin	250		
CYP2D6	Dextromethorphan	15		
CYP3A4	Testosterone	100		
CYP3A4	Midazolam	20		
Phase I CYP	7-ethoxycoumarin	100		
SULT	7-hydroxycoumarin sulfation	100		
UGT	7-hydroxycoumarin glucuronidation	100		
AO	Zoniporide	100		

Hepatocytes in suspension (0.5 million/mL) were incubated with substrate at 37°C in 5% CO₂ and 90% humidity for 30 minutes, respectively. The concentrations of the metabolites were determined using LC-MS/MS methods.

ENZYME INDUCTION ACTIVITY

ENZYME	TREATMENT	mRNA FOLD-CHANGE
CYP1A2	Omeprazole (25 µM)	
CYP2B6	Phenobarbital (2 mM)	
CYP3A4	Rifampin (10 μM)	

Hepatocytes were seeded on a 24-well plate pre-coated with collagen I, and cultured for 48 hours at 37° C in 5% CO2 and 90% humidity. The hepatocytes were then incubated at 37° C in 5% CO2 and 90% humidity with omeprazole (25μ M, CYP1A2), phenobarbital (2μ M, CYP2B6), rifampin (10μ M, CYP3A4) and vehicle control for 48 hours, respectively. The media were replaced every 24 hours with fresh media containing the positive inducers and vehicle. The mRNA levels of CYP1A2, CYP2B6 and CYP3A4 were determined using RT-PCR.

The cells from this lot were derived from tissue obtained from accredited institutions. Consent was obtained by these institutions from the donor or the donor's legal next of kin, for use of the tissue and its derivatives for research purposes.

Najah Abi-Gerges Date



3030 Bunker Hill Street, Suite 312
San Diego, CA 92109
www.anabios.com
For inquiries, please contact us at info@anabios.com.

VP, Research & Development



3030 Bunker Hill, Suite 312 San Diego, CA 92109 Tel: 858-224-7361 Fax: 858-224-7371 www.anabios.com **Organ: Liver**

AnaBios Lot Number: 1142

RESEARCH ONLY

Donor Demographic Form

D	onor	Inj	orm	atio	n
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Urinary Tract Disease

Tobacco

Age:	57			Ethnicity:	Caucasian	Sex	:	Female
Height (cm):	157			Weight (kg):	52.5	BM	I:	21.3
COD:	Anoxia/Care	diovascı	ılar					
Consent for Research	confirmed thro	ıgh visua	ıl by Ana	Bios Coordinator (Yes or N	No): Yes			
Past Medical Hi	story							
Respiratory Dise	ease No	□ Y	'es ⊠	As a child				
Cardiac Disease	No	\boxtimes \mathbf{y}	les □					
Hypertension	No	□ Y	'es ⊠	For 1 year – resolved th	rough diet			
Neurological Dis	sease No	□ Y	'es ⊠	Frequent migraines				
Cancer	No	\boxtimes Y	'es □					
Diabetes	No	\boxtimes \mathbf{y}	⁄es □					
Liver Disease	No	\boxtimes Y	es □					
GI Disease	No	\boxtimes γ	⁄es □					
Kidney Disease	No	⊠ Y	'es □					

Alcohol No \square Yes \boxtimes Drank one margarita occasionally x 35 years, one beer weekly x 35 years

Drug Use No ⊠ Yes □

Medication Home No □ Yes ⊠ Zomig, Flonase, Zyrtec, Turmeric, Collagen, Probiotic, Vitamin C, Zinc, Magnesium,

Yes \square

Yes \square

No 🗵

No 🗵

Comments Arthritis in hands; Tox screen positive for Fentanyl upon admission. Spinal surgery T4, T5 fused in 2017

Disophrol, Calcium Carbonate, Vitamin D3

Serology

	(Yes/No)	Negative	Positive		(Yes/No)	Negative	Positive
Anti – HCV	Yes	Negative	-	HBs Ab	No	-	-
Anti – HIV 1/2	Yes	Negative	-	HBs Ag	Yes	Negative	-
Anti – HTLV 1/2	Yes	Negative	-	RPR/STS/VDRL	Yes	Negative	-
CMV	No	-	-	HCV NAT	Yes	Negative	-
CMV IgG	Yes	Negative	-	HCV RIBA	No	-	-
CMV IgM	No	-	-	HIV NAT	Yes	Negative	-
EBNA	No	-	-	WNV IgM	No	-	-
EBV IgG	Yes	-	Positive	HBV	Yes	Negative	-
EBV IgM	Yes	Negative	-	Toxo	Yes	Negative	-
HBc Total	No	-	-	WNV NAT	No	-	-
HBc Ab IgG	Yes	Negative	-	Chagas	No	-	-
HBc Ab IgM	No	•	-	SARS-CoV-2	Yes	Negative	-

Authorized by:

08-03-2022

nature