

POOLED HUMAN LIVER MICROSOMES

Catalog Number.....452161

Storage Conditions..STORE AT -80oC

Lot Number.....23418

Date Released2012 January

Expiration Date.....2022 January

Package Contents.....0.5 mL

Protein Content.....20 mg/mL in 250 mM sucrose

Assay Results

Enzyme Measured	Assay	Enzyme Activity [in pmol/(mg x min)]
Total P450	Omura and Sato	330pmole/mg
OR	Cytochrome c Reductase	200
cyt. b ₅	Spectrophotometric	420 pmole/mg
CYP1A2	Phenacetin O-deethylase	700
CYP2A6	Coumarin 7-hydroxylase	1300
CYP2B6	(S)-Mephenytoin N-demethylase	79
CYP2C8	Paclitaxel 6a-hydroxylase	82
CYP2C9	Diclofenac 4'-hydroxylase	2000
CYP2C19	(S)-Mephenytoin 4'- hydroxylase	41
CYP2D6	Bufuralol 1'-hydroxylase (The amount of activity inhibited by 1 f.M quinidine.)	110
CYP2E1	Chlorzoxazone 6-hydroxylase	1200
CYP3A4	Testosterone 6β3-hydroxylase	3200
CYP4A11	Lauric acid 12-hydroxylase	1300
FMO	Methyl p-Tolyl Sulfide Oxidase	3200
UGT1A1	Estradiol 3-Glucuronidation	2200
UGT1A4	Trifluoperazine Glucuronidation	580
UGT1A9	Propofol Glucuronidation	5500

- Pool is comprised of 2% HFC124, HMC769, HFC692, HFC804, HFH500, 3% HFC56, HFC165, HMC579, HMC704, HFC173, 4% HMC518, 5% HFC737, HMC162, HFC194, HMC198, HMAA213, HMAA548, HFC613, HFC650, HFC665, HMC689, HMC715, HMC746, HMC822, and HFC824 .
- All cytochrome P450 assays conducted at 0.8mg/mL protein (except CYP3A4 which was at 0.5 mg/mL) with an NADPH generating system (1.3 mM NADP, 3.3 mM glucose 6-phosphate and 0.4 U/mL glucose 6-phosphate dehydrogenase), 3.3 mM MgCl₂, and incubated for 20 minutes or 10 minutes (CYP2C8, CYP2C9, CYP3A4 and CYP4A). 0.1 M Potassium phosphate buffer (pH 7.4) was used for all P450 enzymes except CYP2B6 and CYP2C19 (0.05 M) and CYP2A6, CYP2C9 and CYP4A which used 0.1 M Tris (pH 7.5). The FMO assay was conducted in the same volume and protein concentration in 0.05 M glycine buffer (pH 9.5) with the same NADPH generating system, 3.3 mM MgCl₂, 1.2 mM diethylenetriaminepentacetic acid, 0.5 mg/mL Triton X-100 and incubated for 10 minutes. All UGT Glucuronidation assays contained 0.5mg/mL protein (except UGT1A9 which was at 0.15 mg/mL), 2 mM UDPGA, 10 mM MgCl₂, 25 ug/mL Alamehithicin in 50 mM Tris-HCl buffer (pH 7.5). UGT1A1 was incubated for 30 minutes, 1A4 for 20 minutes, and 1A9 for 10 minutes. Activities expressed as pmole product per (mg protein x minute) except cytochrome c reductase which is expressed as nmole product per (mg protein x minute)
- HAZARD WARNING: This microsome preparation was prepared from freshly frozen human tissues. All donor tissues have tested negative for pathogens by PCR for the following: HIV I/II, HTLV I/II, CMV, HBV and HCV, however, we recommend that this material be considered a potential biohazard.
- Donors with positive serology for CMV are identified in the donor demographic sheet with a single asterisk. Donors with CMV serology unknown are identified with a double asterisk. Donors CMV negative for serology are unmarked.

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Donor Information

Specimen	HFC56*	HFC124*	HMC162	HFC165	HFC173*
Gender	Female	Female	Male	Female	Female
Age	57 years	58 years	20 years	70 years	46 years
Race	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian
Cause of Death	Anoxia	Motor Vehicle Accident	Head Trauma	ICH	CVA
Social History	Not available	No alcohol, tobacco, drug use	Alcohol Use	No drug or alcohol use, no tobacco use since 1985	Tobacco (1/2 pack/day x 25 years), Alcohol use, and Marijuana use (once per week)
Medical History	Amoxicillin, HTN, Pulmonary Fibrosis, Arthritis, Diabetes, Insulin Injections	Not available	Not available	HTN Synthroid, Lasix, Toprol, protonix, Diclofenac, Fluoxetine, Felodipine, Hyzaar	Squamous cell carcinoma, Appendectomy, Tonsillectomy, Adenoidectomy
Medication given during Hospitalization	Dopamine	Not available	Dobutamine, Neosynephrine, Levophed, Vasopressin, T4	Heparin Fentanyl	Nicardepine, Labetolol, Tylenol

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Donor Information

Specimen	HFC194	HMC198*	*HMAA213	HFH500*	HMC518
Gender	Female	Male	Male	Female	Male
Age	50 years	58 years	68 years	54 years	47 years
Race	Caucasian	Caucasian	African American	Hispanic	Caucasian
Cause of Death	CVA, ICH	CVA, respiratory arrest	CVA	Subarachnoid Hemorrhage	Single gun shot wound to head
Social History	Rare drinker	5ppd x 30 years, no alcohol or drug knowledge, mental disorders	Cigars X 23 yrs, Hard liquor X 35 yrs, frequency unknown	Non-smoker, moderate drinker 3-4 glasses per day.	Tobacco use: 1 PPD, Alcohol use approx 2 beers/wk., hx of Marijuana use
Medical History	Took Zoloft, ibuprofen, birth control pills; poorly controlled hypertension nonmed compliant 5yrs, vicodin for recent shoulder issues, C-section in 1981	Hypertension, polycystic disease	Hypertension: non-compliant w/ meds Diabetes, Insulin	Treated for hypertension	Healthy
Medication given during Hospitalization	Heparin, Levothyroxine, Lasix, D50W, Reg insulin, Solumedrol, Narcan, Zosyn	Magnesium Sulfate, Cardene, Propofol, Labetolol, Integilin, NaCl, Neosynephrine, Heparin, Insulin, Vasopressin, Solumedrol, Ancef	Levophed, Cadene, Dopamine, Insulin, Cerebyx, Decadron, Dilantin, Lasix, Kcl, Levoquin, Lisinopril, Lopressor, Mannitol, Procardia, Vancomycin, K-Phos, NS, 5W, Heparin, Cisatracurium and Ancef	Dopamine, Decadron, Nipride, Vasotec, Procardia	Dopamine, NEO, Pavulon, Heparin

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Donor Information

Specimen	HMAA548	HMC579*	HFC613*	HFC650*
Gender	Male	Male	Female	Female
Age	63 years	54 years	33 years	58 years
Race	African American	Caucasian	Caucasian	Caucasian
Cause of Death	Head trauma, blunt injury	Intracranial bleed	Anoxia s/p seizure	Cerebrovascular Accident, Intracranial Bleed s/p Aneurysm
Social History	Tobacco use: 1 ppd x20 years, Quit 10 years prior, Alcohol use: gallon gin/day	Tobacco use: 3 ppd X 45 years, no alcohol since 5/95, alcohol abuse since 1962, Valium abuse (non-prescription) Tattoo (professional)	Social alcohol	Social alcohol. Tobacco use 1 ppd X 45 yrs
Medical History	Back pain	Emphysema, DM x6 mths, controlled with oral meds, Hepatitis - type unknown(PCR results negative) Hypertension, managed by diet, ASA daily, MI 1978, Heart cath week prior to admission, 12/95 with carotid endart, Cirrhosis dx 1970s, Jaundice 2-3 yrs prior, Arthritis in hands, surgery for degenerative disc 1990, Vasectomy, Kidney infection 1992, Kidney stones >5 years prior, Seizures as child, none since 5 years old, Ate paint as child, Micronase	Diabetes, noncompliant with insulin x6 months, Glyburide sporadically, Tendinitis, Appendectomy 1977, Obesity, Hypertension, Chronic poor health, Ovary infarcted (tube twisted), Digestive problems associated with headaches, Otis inflammation, ASA., Keflex for recent ear infection, allergic to strawberries	Hypertension. High cholesterol. Benign bilat breast biopsies. Peptic ulcer late 70s. Arthritis in feet, knee stiffness s/p MVA 1983. Beroca Plus, Tylenol with codeine, Zantac, Tenoretic, Vasotec, Zocor. Asbestos exposure 10 years prior
Medication given during Hospitalization	Not available	Heparin, Mannitol, Lasix, NTG, Dopamine, DDAVP, Lacrilube, crystalloids	Heparin, Mannitol, Dopamine, Dobutamine, Narcan, Dilantin, Cigforan, Ampicillin/Sulbactrim, Verapamil, Lasix, albumin, crystalloids, colloids	Heparin, Solumedrol, Regitine, Neosynephrine, Dopamine, Mannitol, Ancef, Zantac, MgSO4, CaGluconate, Dilantin, albumin, crystalloids

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Donor Information

	HFC665	HMC689	HFC692*	HMC704 *	HMC715
Gender	Female	Male	Female	Male	Male
Age	64 years	69 years	56 years	41 years	46 years
Race	Caucasian	Caucasian	Caucasian	Caucasian	Caucasian
Cause of Death	Cerebrovascular accident, Intracranial hemorrhage	cardiac Pulmonary Accident	Intercranial hemorrhage	Head trauma s/p motor cycle accident	Anoxia
Social History	Normal, Tobacco use: 1 ppd x50 years, quit 2 years prior	2-3 beers a week x20 years	Tobacco use:1 ppd x40 years, infrequent drink.	1 drink/ week	Non-smoker, non-drinker
Medical History	Early stage emphysema, 5/96. CHF from pneumonia, 5/96, treated with Lanoxin for atrial fib. Diabetes x10 years, controlled with Glucator (oral); 5/96 became IDDM, hypertension x19 years, diverticulitis. Hysterectomy: 1965, cholecystectomy, 1976, Lasix, Tegretol, MicroK, Chlorpromamide.	PCP noted BPH 7 years prior; family not aware.	Hypertension x10 years, Total abdominal hysterectomy 25 years prior for fibroids, Joint pain in knees, Verapamil, Prinivil, hydrochlorothiazide (record unclear).	Asthma as a child. Diabetes x5 years, controlled with Glyberide. Surgery for obstruction in urethra.	HTN discovered 3 weeks prior, brain tumor, Exp lap for small bowel obstruction.
Medication given during Hospitalization	Heparin, Dopamine, D5, Nipride, Ancef, Lasix, Crystalloids.	Dopamine, nitroglycerine, Pronestyl, Ancef, Epinephrine, HCO ₃ , Lasix, Bumex, Heparin, Solumedrol.	Dopamine, Cipro, T4, Crystalloids, Heparin, Mannitol, Solumedrol	Vecuronium, Versed, Fentanyl, CaChloride, KCl, MgSO ₄ , Ampicillin, Flagyl, Pepcid, Tylenol, Albumin, Mannitol, Heparin	Dopamine, Ancef

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Specimen	HFC737*	HMC746	HMC769*	HFC804*
Gender	Female	Male	Male	Female
Age	77 years	65 years	61 years	49 years
Race	Caucasian	Caucasian	Caucasian	Caucasian
Cause of Death	Cerebrovascular Accident	Head injury s/p tractor accident	Subarachnoid hemorrhage	Anoxia, CVA
Social History	Non-smoker, occasional glass of wine or beer.	Quit smoking 4 years ago, prior 2-3 ppd x37 years	1 pack every 3 days last 3 months, prior 1 ppd x40 years.	2-3 cigarettes per day x10 years, occasional wine
Medical History	Choliaptectomy, daily meds -Denvasc, Digoxin, Ecolrin, Premarin	MI, angioplasty 3-4 years prior, Worked as plumber - exposed to lead, possibly mercury and asbestos, Allergic to Tetracycline.	Knee arthroscopy 10/00, abdominal aortic aneurysm repair (elective) 10/98, disc repair 1997.	OTC vitamins. Upon recovery - left replaced hepatic artery 30% occlusive sclerosed.
Medication given during Hospitalization	Decadron, Pepcid, Lasix	Heparin, Offinor, Dopamine, Levophed, blood products, Crystalloids, Vasopressin, Versed, Vecuronium, Norepinephrine, tetanus, Pitressin, Maxipine, Mannitol, Dilantin, Cerebryx, Digoxin, T3.	Heparin, T4, Dopamine, Vasopressin Pitressin, Thyroxine, crystalloids, Ancef.	Heparin, T4, Dopamine, Levophed, crystalloids, albumin, Amiodarone, insulin, KCl, Zinacef, CaCl, K-phos, Lasix, Nimbex, Solumedrol.

Donor Information

Specimen	HMC822*	HFC824
Gender	Male	Female
Age	65 years	40 years
Race	Caucasian	Caucasian
Cause of Death	CVA, ICH	SAH s/p MVA
Social History	Quit smoking 35 years prior, social alcohol	Social alcohol
Medical History	Lens implants 2 days and 6 weeks earlier, Took Memory Essentials, herbal supplements, Quixin, joint complex, Allergic to ibuprofen, pancreatitis 1996, Osteoarthritis in knees, Neurodermatitis >27 yrs prior.	Frequent UTIs, 4 C sections, Tonsillectomy as a child, Venereal warts >20 years ago, Metabolife for weight loss; lost 70-80 lbs since 2001 with exercise, Biopsy notes clear cell carcinoma in left kidney.
Medication given during Hospitalization	Dopamine, Pitressin, T4, D5, Accucheck, Neosynephrine, Nipride, Vasopressin, crystalloids, Mannitol, Protonix, KCl, Ancef, Cerebryx, Ativan, Heparin.	Heparin, Cefazolin, KCl, Dopamine, crystalloids, albumin, CaGI, Vasopressin, T4, Lasix, Kefzol.