

Certificate of Analysis

Human 100-Donors Pooled Liver Microsomes

FOR RESEARCH USE ONLY. Not intended for human or animal diagnostic or therapeutic uses. Users need to wear personal protective equipment during work.

Catalog number: MIC-H50

Batch numbers: MIC-H100-01

1. Specific Content and Enzymes Activities

Enzyme		Content / Rate
Cytochrome P450 content	nmol/mg protein	0.322
NADPH-cytochrome c reductase	nmol/mg protein/min	198

Enzyme	Marker	[S]	Result*
CYP1A2	Phenacetin O-deethylation	1 μ M	5.1
CYP2A6	Coumarin 7-hydroxylation	1 μ M	602.4
CYP2B6	Bupropion hydroxylation	1 μ M	1.46
CYP2C8	Amodiaquine N-deethylation	1 μ M	TBD
CYP2C9	Diclofenac 4'-hydroxylation	1 μ M	386.4
CYP2C19	Mephenytoin hydroxylation	5 μ M	0.029
CYP2D6	Dextromethorphan O-demethylation	1 μ M	20.41
CYP2E1	Chlorzoxazone 6-hydroxylation	1 μ M	3.10
CYP3A4/5	Testosterone 6 β -hydroxylation	5 μ M	0.31
CYP3A4/5	Nifedipine oxidation	1 μ M	204.6

*Clint is measured in μ L/min/mg protein

2. Product Information

Storage conditions	-80 °C
Shipping conditions	Dry ice
Packaging	0.5 ml with at least 20 mg/ml protein content
Final protein content	22.9 mg/ml
Production date	06 October 2024
Expiry date	5 Years

3. Viral RNA Detection by qPCR

Virus	Specification	Result
Hepatitis B		Positive <input type="radio"/> Negative X
Hepatitis C	Negative	Positive <input type="radio"/> Negative X
HIV-1 and HIV-2		Positive <input type="radio"/> Negative X

4. Donors Information

Donor ID	Sex	Ethnicity	Age	Tobacco use	Alcohol use	Pathology or Cause of Death
LIV100002	M	Caucasian	76	Yes	No	Cholangiocarcinoma
LIV100004	M	Caucasian	44	No	No	Liver hemangioma
LIV100005	F	Caucasian	43	No	No	Colorectal cancer liver metastases
LIV100006	F	Caucasian	84	No	No	Colorectal cancer liver metastases
LIV100008	F	Caucasian	64	No	No	Hepatocellular carcinoma
LIV100009	M	Caucasian	18	No	No	Head trauma
LIV100011	M	Caucasian	59	No	Yes	Hemorrhagic stroke
LIV100015	M	Caucasian	59	No	No	Colorectal cancer
LIV100017	F	Caucasian	64	No	No	Colorectal cancer
LIV100018	F	Caucasian	58	No	No	Colorectal cancer liver metastases
LIV100019	F	Caucasian	57	No	No	Adenocarcinoma of sigmoidal colon
LIV100021	F	Caucasian	51	No	No	Colorectal cancer liver metastases
LIV100023	F	Caucasian	86	No	No	Colorectal cancer liver metastases
LIV100024	M	Caucasian	66	No	No	Colorectal cancer liver metastases
LIV100026	F	Caucasian	72	No	No	Cholangiocarcinoma
LIV100027	M	Caucasian	66	No	No	Colorectal cancer liver metastases
LIV100030	F	Caucasian	62	No	No	Colorectal cancer liver metastases

Donor ID	Sex	Ethnicity	Age	Tobacco use	Alcohol use	Pathology or Cause of Death
LIV100031	M	Caucasian	56	Yes	No	Perihilar cholangiocarcinoma
LIV100032	M	Caucasian	60	No	No	Colorectal cancer liver metastases
LIV100033	F	Caucasian	61	No	No	Colorectal cancer liver metastases
LIV100036	M	Caucasian	60	No	No	Colorectal cancer liver metastases
LIV100037	F	Caucasian	58	No	No	Colorectal cancer liver metastases
LIV100038	F	Caucasian	68	No	No	Intrahepatic cholangiocarcinoma
LIV100039	M	Caucasian	56	No	No	Colorectal cancer liver metastases
LIV100040	F	Caucasian	57	No	No	Colorectal cancer liver metastases
LIV100041	M	Caucasian	30	No	No	Hepatocellular carcinoma
LIV100042	F	Caucasian	53	No	No	Hepatocellular carcinoma
LIV100043	M	Caucasian	64	No	No	Colorectal cancer liver metastases
LIV100044	F	Caucasian	66	No	No	Colorectal cancer liver metastases
LIV100045	M	Caucasian	49	No	No	Pleomorphic sarcoma
LIV100046	F	Caucasian	68	No	No	Cyst of the right lobar duct.
LIV100047	F	Caucasian	38	No	No	Hemangioma
LIV100048	F	Caucasian	60	No	No	Vasculobiliary damage of bile ducts
LIV100049	F	Caucasian	47	No	No	metastasis
LIV100050	F	Caucasian	73	No	No	Cystadenoma
LIV100052	M	Caucasian	76	N/A	N/A	N/A
LIV100053	M	Caucasian	66	N/A	N/A	N/A
LIV100054	M	Caucasian	78	N/A	N/A	N/A
LIV100055	F	Caucasian	64	N/A	N/A	N/A
LIV100056	M	Caucasian	80	N/A	N/A	Colorectal cancer liver metastases
LIV100057	F	Caucasian	32	No	N/A	Benign tumor
LIV100058	F	Caucasian	59	No	N/A	N/A
LIV100059	M	Caucasian	67	No	N/A	Cholangiocarcinoma
LIV100061	M	Caucasian	86	No	N/A	-
LIV100062	M	Caucasian	70	Yes	No	Colorectal cancer liver metastases
LIV100063	F	Caucasian	77	N/A	N/A	Metastasis
LIV100064	F	Caucasian	70	No	No	Hepatic cyst
LIV100065	M	Caucasian	75	N/A	N/A	N/A
LIV100066	M	Caucasian	65	No	No	Colorectal cancer liver metastasis
LIV100067	F	Caucasian	50	No	No	Colorectal cancer liver metastasis
LIV100068	F	Caucasian	69	No	No	Cholangiocarcinoma
LIV100069	F	Caucasian	72	No	No	Colorectal cancer liver metastasis
LIV100070	F	Caucasian	47	No	No	Gastrointestinal stromal tumor
LIV100072	M	Caucasian	61	No	No	Cancer of the left kidney
LIV100073	F	Caucasian	60	No	No	Perihilar cholangiocarcinoma
LIV100074	F	Caucasian	67	No	No	Intrahepatic cholangiocarcinoma
LIV100075	M	Caucasian	62	No	No	Cancer of the sigmoid colon
LIV100076	M	Caucasian	45	No	No	Perihilar cholangiocarcinoma
LIV100079	F	Caucasian	54	No	No	Bile duct injury
LIV100080	M	Caucasian		No	No	Introductal cholangiocarcinoma

Donor ID	Sex	Ethnicity	Age	Tobacco use	Alcohol use	Pathology or Cause of Death
LIV100081	M	Caucasian	55	No	No	Cancer of the sigmoid colon
LIV100082	F	Caucasian	67	Unknown	Unknown	Colorectal cancer liver metastasis
LIV100083	M	Caucasian	56	Yes	No	Colorectal cancer liver metastasis
LIV100085	F	Caucasian	70	No	No	Perihilar cholangiocarcinoma
LIV100086	M	Caucasian	44	Yes	No	Cancer of the rectosigmoid colon
LIV100087	F	Caucasian	53	No	No	Cancer of the ascending colon
LIV100088	M	Caucasian	70	Yes	No	Cancer of rectum
LIV100089	M	Caucasian	73	No	No	Prostate cancer, colorectal cancer
LIV100090	M	Caucasian	56	No	No	Cancer of the sigmoid colon
LIV100091	M	Caucasian	64	No	No	Cancer of the sigmoid colon
LIV100092	M	Caucasian	68	No	No	Cancer of colon
LIV100093	F	Caucasian	67	No	No	Cancer of rectum
LIV100094	F	Caucasian	70	No	No	Colon adenocarcinoma
LIV100095	F	Caucasian	55	No	No	Liver teratoma
LIV100096	M	Caucasian	64	No	No	Cancer of rectum
LIV100097	F	Caucasian	64	Yes	Yes	Perihilar cholangiocarcinoma
LIV100098	F	Caucasian	70	Yes	No	Intrahepatic cholangiocarcinoma
LIV100002	M	Caucasian	25	No	Yes	Cancer of the sigmoid colon
LIV100005	M	Caucasian	45	No	Yes	Perihilar cholangiocarcinoma
LIV100099	F	Caucasian	80	No	No	Bile duct injury
LIV100100	F	Caucasian	38	Yes	No	Introductal cholangiocarcinoma
LIV100101	M	Caucasian	67	No	Yes	Perihilar cholangiocarcinoma
LIV100102	F	Caucasian	59	Yes	No	Intrahepatic cholangiocarcinoma
LIV100103	M	Caucasian	67	Yes	No	Cancer of the sigmoid colon
LIV100104	M	Caucasian	71	Yes	Yes	Perihilar cholangiocarcinoma
LIV100105	F	Caucasian	26	Yes	No	Colorectal cancer liver metastases
LIV100106	F	Caucasian	23	Yes	Yes	Colorectal cancer liver metastases
LIV100107	M	Caucasian	41	No	Yes	Intrahepatic cholangiocarcinoma
LIV100108	M	Caucasian	33	Yes	No	Colorectal cancer liver metastases
LIV100109	M	Caucasian	49	Yes	No	Colorectal cancer liver metastases
LIV100110	M	Caucasian	57	No	Yes	Perihilar cholangiocarcinoma
LIV100111	F	Caucasian	69	Yes	No	Colorectal cancer liver metastasis
LIV100112	M	Caucasian	43	Yes	No	Colorectal cancer liver metastasis
LIV100113	M	Caucasian	37	No	No	Perihilar cholangiocarcinoma
LIV100114	F	Caucasian	34	No	Yes	Cancer of the rectosigmoid colon
LIV100115	M	Caucasian	23	No	No	Cancer of the ascending colon
LIV100116	M	Caucasian	23	No	No	Cancer of rectum
LIV100117	M	Caucasian	71	No	No	Prostate cancer, colorectal cancer
LIV100118	F	Caucasian	50	Yes	Yes	Cancer of the sigmoid colon
LIV100119	M	Caucasian	67	No	No	Cancer of the sigmoid colon
LIV100120	F	Caucasian	58	No	No	Cancer of colon
LIV100121	M	Caucasian	71	Yes	Yes	Cancer of rectum

5. Visa for Batch Release

Name	Signature	Date
Andrey Simonov		16/10/2024