



contact@veritasinnovation.com

VERITASINNOVATION

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- 12) Human Whole Blood, Drug Free**

HUMAN & ANIMAL BLOOD PRODUCTS

Human:

All human blood components supplied by Golden West BioSolutions, LLC can be provided as an individual unit or pool, available in milliliter to bulk quantities. Each donor unit is obtained from FDA registered U.S. facilities and are negative or non-reactive for specific viral markers.

Patient samples can be provided as banked or prospective collections with volumes >1ml and can be utilized in normal, disease, drugs, pituitary, steroids, thyroids, cardiac, tumor markers, and fertility applications.

Animal:

All animal blood components can be provided per customer request, from milliliter to liter quantities. Each animal is verified to be healthy prior to collection.

Fractions:

Gamma and albumins are available in gram and kilogram quantities.

DISEASE STATES

Disease state plasma and serum are obtained from FDA registered U.S. facilities and are negative or non-reactive for specific viral markers.

OTHER SERVICES

All products can be purchased as individual units, pools, defibrinated, delipidized, and/or charcoal-stripped according to customer specifications.

BLOOD PRODUCTS

SPECIES	WHOLE BLOOD*	PLASMA*	SERUM	GAMMA	ALBUMIN
Human	X	X	X	X	X
Bovine	X	X	X	X	X
Canine	X	X	X		
Chicken	X				
Equine	X	X	X		X
Fetal Calf	X		X		
Guinea Pig	X				
Mouse	X	X	X	X	
Göttingen Mini Pig		X			
Rat	X	X	X		
Camel	X				
Goat			X		X
Newborn Calf	X				
Monkey			X		
Porcine			X		
Rabbit			X		X
Sheep			X		X

*ANTI-COAGULANTS AVAILABLE:

K2 EDTA	Lithium Heparin	ACD	Sodium Citrate
K3 EDTA	Sodium Heparin	CPDA-1	Potassium Oxalate/Sodium Fluoride
Sodium EDTA	CPDA		

DISEASE STATES

Anti-Cardiolipin	Lyme Disease	Hepatitis C (HCV)
Anti-Centromere	Rheumatoid Factor (RF)	Herpes Simplex Virus I (HSV I)
Anti-JO-1	Syphilis (RPR)	Herpes Simplex Virus II (HSV II)
Anti-P ANCA	HAMA	HIV 1
Anti-C ANCA	Cytomegalovirus (CMV)	HIV 2
Anti-SCL-70	Dengue	Measles
Anti-Ssb	Epstein-Barr Antibody (EBV)	Rubella
Anti-Tg/TPO	H. Pylori	Toxoplasmosis (or Toxoplasma)
Total IgE	Hepatitis A (HAV)	Varicella Zoster (VZV)
Myeloma	Hepatitis B (HBV)	

ANTIGENS HORMONES AND ANTIBODIES

Golden West BioSolutions, LLC (GWS) provides antigens, hormones, and antibodies. We are proud to offer a legacy of products that have aided research and manufacturing needs for many years.

GWS has multiple subunits and various antibodies available.

The hormones GWS supplies are derived from anterior pituitary glands which are known to produce adrenocorticotrophic hormone (ACTH), thyroid-stimulating hormone (TSH), growth hormone (GH), follicle-stimulating hormone (FSH), luteinizing hormone (LH), and prolactin (PRL).

The cancer antigens are derived from native serum, ascites, tumors, and seminal fluid. GWS supplies recombinant forms from prostate, breast, ovarian, and gastrointestinal cancers.

Recombinant proteins and purified immunoglobulins are available as well.

Please inquire: josh@gwbiosolutions.com



HIGHLY PURIFIED ANTIGENS

ANTIGENS	HUMAN	RAT	MOUSE	OVINE	BOVINE	PORCINE	EQUINE	CHICKEN
ACTH	X	X	X					
CG	X							
CG, Recombinant	X							
CG α & CG β , Recombinant	X							
FSH, Pituitary	X	X	X	X	X	X	X	
GH, Pituitary	X	X	X	X	X	X	X	X
GH, Recombinant	X	X	X					
Leptin, Recombinant	X	X	X					X
LH	X	X	X	X	X	X	X	
PRL	X	X	X	X	X	X	X	X
PRL, Recombinant	X	X	X	X	X			X
Relaxin	X	X	X					
TSH	X	X	X	X	X	X	X	X
IgE, Native	X							
IgE, Recombinant	X							
CRP	X							
AFP	X							
B2M	X							

CANCER ANTIGENS

CA 15-3	CA 19-9	CA 72-4	CA 125	PSA

ANTIBODIES

HORMONE ANTISERUM	HUMAN	RAT	MOUSE	OVINE	BOVINE	PORCINE	EQUINE	CHICKEN
ACTH	Rb, Gp	Rb, Gp	Rb	Rb		Rb		
FSH	Rb, Gp	Rb, Gp	Rb	Rb	Rb	Rb	Rb	
GH, Native	Rb, Gp	Rb, Gp	Rb	Rb		Rb		Rb
GH, Recombinant	Rb	Rb	Rb	Rb	Ba	Rb		
Leptin	Rb	Rb	Rb	Rb		Rb		
LH	Rb, Gp	Rb, Gp	Rb	Rb		Rb		
PRL, Native	Rb, Gp	Rb, Gp	Rb	Rb	Rb	Rb	Rt	Rb
PRL, Recombinant	Rb	Rb	Rb	Rb		Rb		
TSH	Rb, Gp	Rb, Gp	Rb	Rb	Rb	Rb		

HOST- Rb- Rabbit antisera | Gp- Guinea pig antisera | Ba- Baboon | Rt- Rat

HUMAN SERUMS & FLUIDS

Golden West Diagnostics (GWD) consistently supplies high-quality processed human serums for all of your application needs. See below for our options of Off the Clot Human Serum or Human Serum from defibrinated plasma.

HUMAN SERUM FROM DEFIBRINATED PLASMA PRODUCTS

TESTED FOR THESE ANALYTES- REFER TO SPECIFICATION SHEETS FOR SPECIFICS

TEST	SPECIFICATIONS	METHODOLOGY
Glucose	65-105 mg/dL	Hexokinase
Creatinine	0.7-1.4 mg/dL	Jaffe
Sodium	131-151 mmol/L	ISE
Potassium	3.5-5.5 mmol/L	ISE
Chloride	85-108 mmol/L	ISE
Calcium	5.0-10.0 mg/dL	Arsenazo III
Total Protein	5.5-6.5 g/dL	Biuret
Cholesterol	See Spec	Enzymatic
Triglycerides	See Spec	GPO
pH	7.0-7.5	pH Meter
B.U.N.	7-14 mg/dL	Berthelot
Phosphorus	3.0- 4.0 mg/dL	Phosphomolybdate
Albumin	2.5-4.5 g/dL	BCG Dye-binding
Uric Acid	2.5-4.5 mg/dL	Uricase/Trinder
Bioburden	≤100 CFU/mL	USP/BAM

SP1000 HUMAN SERUM NORMAL

SP1010 HUMAN SERUM, DELIPIDIZED

SP1040 HUMAN SERUM, CHARCOAL TREATED

SP1050 HUMAN SERUM, DOUBLE CHARCOAL TREATED

SP1060 HUMAN SERUM, CHARCOAL TREATED AND DELIPIDIZED

SP1070 HUMAN SERUM, DOUBLE CHARCOAL TREATED AND DELIPIDIZED

TEST	SPECIFICATIONS	METHODOLOGY
T4	≤4 µg/dL	CLIA
TSH, 3rd Generation	≤0.2 µIU/mL	CLIA
Progesterone	≤0.5 ng/mL	CLIA
Testosterone	≤0.2 ng/mL	CLIA
Estradiol	≤10 pg/mL	CLIA

SERUM FROM OFF THE CLOT HUMAN SERUM

SP2000 HUMAN SERUM POOLED AND FILTERED

SP2070 HUMAN SERUM, DOUBLE CHARCOAL TREATED, DELIPIDIZED

TEST	SPECIFICATIONS	METHODOLOGY
T4	≤4.0 µg/dL	CLIA
TSH, 3rd Generation	≤0.2 µIU/mL	CLIA
Progesterone	≤0.5 ng/mL	CLIA
Testosterone	≤0.2 ng/mL	CLIA
Estradiol	≤10 pg/mL	CLIA

UNIVERSAL NEGATIVE

UN1000 UNIVERSAL NEGATIVE HUMAN SERUM

TEST	SPECIFICATIONS	METHODOLOGY
IgG	<100 mg/dL	Immunologic
IgM	<10 mg/dL	Immunoturbidimetric

SP1072.5 CRP FREE HUMAN SERUM

TEST	SPECIFICATIONS	METHODOLOGY
CRP	<0.1 mg/L	Chemiluminescence

HUMAN SPINAL FLUID

Made from excellent surrogate matrix in place of normal human spinal fluid and is a more price conscious option, readily available.

OH1030-S SPINAL FLUID, SYNTHETIC

TEST	SPECIFICATIONS	METHODOLOGY
Glucose	50 – 100 mg/dL	Hexokinase
Sodium	130 – 150 mEq/L	ISE
Potassium	≤3.0 mEq/L	ISE
Chloride	115 – 135 mEq/L	ISE
Micro Total Protein	69 – 79 mg/dL	Biuret
Prealbumin	2.2 – 7.1 %	Protein Electrophoresis
Appearance	Clear Solution	Visual

HUMAN SEMINAL FLUID

Collected and pooled from normal healthy donors confirmed to be viral negative.

OH1040 HUMAN SEMINAL FLUID, POOLED

HUMAN SERUM FOR TISSUE CULTURE APPLICATIONS

Golden West Diagnostics (GWD) offers three types of human tissue culture products including, AB Male Serum from Defibrinated Plasma, AB Male Off the Clot Human Serum, & Low Endotoxin Human Serum Albumin.

Human Serum AB Products are:

- 0.1 µm Filtered
- Low Endotoxin
- Positive for Growth Promotion
- Sterile
- Negative for Mycoplasma
- Manufactured according to cGMP

HUMAN SERUM ALBUMIN PRODUCTS

HA1040 HUMAN SERUM ALBUMIN, LOW ENDOTOXIN

TEST	SPECIFICATIONS	METHODOLOGY
Purity	≥95%	HPLC
Total Protein (5% Solution)	≥4.8 g/dL (5% Solution)	Biuret
Color	Off White	Visual
State	Powder	Visual
Sodium	<50 mmol/L	ISE
Potassium	<2.0 mmol/L	ISE
Chloride	<50 mmol/L	ISE
Calcium	<1.0 mg/dL	Arsenazo III
pH	6.8 – 7.2	pH Meter
Microbial	<100 CFU/mL	USP/BAM
Moisture	≤5%	Protein Calculation
Protease	None Detected	Enzymatic Assay
Endotoxin	<10 EU/mL	Kinetic Chromogenic

*Minimum order for this product is 10Kg



HUMAN SERUM AB PRODUCTS

SP1075 AB MALE HUMAN SERUM FROM DEFIBRINATED PLASMA

TEST	SPECIFICATIONS	METHODOLOGY
Glucose	65 – 105 mg/dL	Hexokinase
Iron	40 – 100 µg/dL	Persijn
Sodium	100 – 160 mmol/L	ISE
Potassium	3.5 – 5.5 mmol/L	ISE
Chloride	85 – 108 mmol/L	ISE
Calcium	5.0 – 10.0 mg/dL	Arsenazo III
Phosphorus	3.0 – 4.0 mg/dL	Phosphomolybdate
Uric Acid	2.5 – 4.5 mg/dL	Uricase/Trinder
Total Protein	4.0 – 7.0 g/dL	Biuret
Triglycerides	50 – 130 mg/dL	GPO
Cholesterol	110 – 210 mg/dL	Enzymatic
Endotoxin	<10 EU/mL	Kinetic Chromogenic
Mycoplasma	Negative	Direct Culture
Growth Promotion	Positive	USP/EP
Sterility	Pass	Steritest (USP)
Hemoglobin	<20 mg/dL	Automated Cell Counter
Osmolarity	260 – 340 mOsm/kg	H2O Calculation
pH	7.0 – 9.0	pH Meter

SP2080 AB MALE HUMAN SERUM FROM OFF THE CLOT

TEST	SPECIFICATIONS	METHODOLOGY
Glucose	50 – 180 mg/dL	Hexokinase
Iron	40 – 100 µg/dL	Persijn
Sodium	100 – 160 mmol/L	ISE
Potassium	3.5 – 5.5 mmol/L	ISE
Chloride	85 – 108 mmol/L	ISE
Calcium	5.0 – 10.0 mg/dL	Arsenazo III
Total Protein	4.0 – 9.0 g/dL	Biuret
Triglycerides	30 – 175 mg/dL	GPO
Cholesterol	80 – 200 mg/dL	Enzymatic
Endotoxin	<10 EU/mL	Kinetic Chromogenic
Mycoplasma	Negative	Direct Culture
Growth Promotion	Positive	USP/EP
Sterility	Pass	Steritest (USP)
Hemoglobin	<25 mg/dL	Automated Cell Counter
Osmolarity	260 – 340 mOsm/kg	H2O Calculation
pH	7.0 – 9.0	pH Meter
Appearance (color)	Colorless to Brown	Visual
Appearance (form)	Liquid	Visual



HUMAN PROTEIN FRACTIONS

Golden West Diagnostics (GWD) consistently supplies high-quality protein fractions that can be sampled and purchased off the shelf or be custom tailored to your specifications. Call GWD today for samples or more details on custom manufacturing.

HUMAN SERUM ALBUMIN PRODUCTS

Manufactured from downgraded therapeutic human serum albumin.

Analyses, solubility and filterability are all based on a 5% solution.

HA1000 HUMAN SERUM ALBUMIN		
TEST	SPECIFICATIONS	METHODOLOGY
Purity	≥95%	HPLC
Total Protein	≥4.7 g/dL	Biuret
Color	Off White	Visual
State	Powder	N/A
Sodium	<50 mmol/L	ISE
Potassium	<2.0 mmol/L	ISE
Chloride	<50 mmol/L	ISE
Calcium	<2 mg/dL	Arsenazo III
pH	6.8 - 7.2	pH Meter
Microbial	<100 CFU/mL	USP/BAM
Moisture	≤5%	Protein Calculation
Protease	None Detected	Enzymatic Assay

HA1010 HUMAN SERUM ALBUMIN, LOW B12/FOLATE		
TEST	SPECIFICATIONS	METHODOLOGY
Purity	≥95%	HPLC
Total Protein	≥4.8 g/dL	Biuret
Color	Off White	Visual
State	Powder	N/A
Sodium	<50 mmol/L	ISE
Potassium	<0.5 mmol/L	ISE
Chloride	<50 mmol/L	ISE
Calcium	<2.0 mg/dL	Arsenazo III
pH	6.8 - 7.2	pH Meter
B12	≤80 pg/mL	Enzymatic Immunoassay
Folate	≤2 ng/mL	Enzymatic Immunoassay
Microbial	<100 CFU/mL	USP/BAM
Moisture	≤5%	Protein Calculation
Protease	None Detected	Enzymatic Assay



HA1020 HUMAN SERUM ALBUMIN, FATTY ACID FREE		
TEST	SPECIFICATIONS	METHODOLOGY
Purity	≥95%	HPLC
Total Protein	≥4.8 g/dL	Biuret
Color	Off White	Visual
State	Powder	N/A
Sodium	<50 mmol/L	ISE
Potassium	<0.5 mmol/L	ISE
Chloride	<50 mmol/L	ISE
Calcium	<2.0 mg/dL	Arsenazo III
pH	6.8 - 7.2	pH Meter
Microbial	<100 CFU/mL	USP/BAM
Moisture	≤5%	Protein Calculation
Fatty Acids	<0.05 mmol/L	Enzymatic Calorimetric

HA2200 HUMAN SERUM ALBUMIN, 20%

Human Serum Albumin, 20%- Testing Varies- Contact Us For More Information

HA2500 HUMAN SERUM ALBUMIN, 25%

Human Serum Albumin, 25%- Testing Varies- Contact Us For More Information

HUMAN GAMMA GLOBULIN

Manufactured from downgraded therapeutic human gamma globulin

HGG1000 HUMAN GAMMA GLOBULIN		
TEST	SPECIFICATIONS	METHODOLOGY
Purity	≥95%	HPLC
Total Protein	≥4.5 g/dL	Biuret
Color	White to Off White	Visual
State	Lyophilized Powder	N/A
Sodium	<200 mmol/L	ISE
Potassium	<10 mmol/L	ISE
Chloride	<200 mmol/L	ISE
Calcium	<2 mg/dL	Arsenazo III
pH	6.0-8.0	pH Meter
Microbial	<100 CFU/mL	USP/BAM
Moisture	≤5%	Protein Calculation

ANIMAL PROTEIN FRACTIONS

Golden West Diagnostics (GWD) consistently supplies high-quality animal protein fractions. GWD offers ready to buy and custom products. Call us today with your specifications.

ANIMAL GAMMA GLOBULIN PRODUCTS

AGG2030 GOAT GAMMA GLOBULIN

TEST	SPECIFICATIONS	METHODOLOGY
Purity*	≥95%	HPLC
Total Protein*	≥4.5 g/dL	Biuret
pH*	6.0 - 8.0	pH Meter
Sodium*	50-200 mmol/L	ISE
Potassium*	<1.0 mmol/L	ISE
Chloride*	30-200 mmol/L	ISE
Moisture*	≤5%	Protein Calculation
Microbial*	<100 CFU/mL	USP/BAM
Calcium*	≤2 mg/dL	Arsenazo III

*5% Solution

AGG2090 RABBIT GAMMA GLOBULIN

TEST	SPECIFICATIONS	METHODOLOGY
Purity*	≥95%	HPLC
Total Protein*	≥4.5 g/dL	Biuret
pH*	6.0 - 8.0	pH Meter
Sodium*	50-200 mmol/L	ISE
Potassium*	<1.0 mmol/L	ISE
Chloride*	30-200 mmol/L	ISE
Moisture*	≤5%	Protein Calculation
Microbial*	<100 CFU/mL	USP/BAM
Calcium*	≤2 mg/dL	Arsenazo III

*5% Solution

AGG2110 SHEEP GAMMA GLOBULIN

TEST	SPECIFICATIONS	METHODOLOGY
Purity*	≥95%	HPLC
Total Protein*	≥4.5 g/dL	Biuret
pH*	6.0 - 8.0	pH Meter
Sodium*	50-200 mmol/L	ISE
Potassium*	<1.0 mmol/L	ISE
Chloride*	30-200 mmol/L	ISE
Moisture*	≤5%	Protein Calculation
Microbial*	<100 CFU/mL	USP/BAM
Calcium*	≤2 mg/dL	Arsenazo III

*5% Solution

THROMBIN

BF3040 BOVINE THROMBIN

Total Activity Per Container >1,000,000 US Unit



SALIVA & URINE

Golden West Diagnostics (GWD) consistently supplies high-quality saliva & urine that can be sampled and purchased off the shelf or be custom tailored to your specifications. Call GWD today for samples or more details on custom manufacturing.

NORMAL SALIVA & URINE

OH1060 NORMAL HUMAN SALIVA

OH2000-pH NORMAL HUMAN URINE, pH TREATED

OH2000 NORMAL HUMAN URINE, MALE

TEST	SPECIFICATIONS	TEST	SPECIFICATIONS
Specific Gravity	≥ 1.007 g/mL	Urine Nitrites	Negative
HCG	<5 mIU/mL	Urobilinogen	0.2-1.05 EU/dL
Urine Protein	Negative	Leukoesterase	Negative
Urine Glucose	Negative	Color	Yellow
Urine Ketones	Negative	WBC	0-4 HPF
Urine Bilirubin	Negative	RBC	0-2 HPF
Urine Blood	Negative	Urine Potassium	≤ 68 mmol/L
Odor	Urine	Urine Sodium	≤ 400 mmol/L
pH	5.5 - 9.0		

MSG5100 MASS SPECT GOLD HUMAN URINE, CATECHOLAMINE FREE

TEST	SPECIFICATIONS	METHODOLOGY
Norepinephrine	<2 µg/L	LC-MS/MS
Epinephrine	<1 µg/L	LC-MS/MS
Dopamine	<2 µg/L	LC-MS/MS
Normetanephrine	<4 µg/L	HPLC-MS/MS
Metanephrine	<4 µg/L	HPLC-MS/MS

MSG6000 MASS SPECT GOLD HUMAN SALIVA, ULTRA-LOW FOR STEROIDS & HORMONES

TEST	SPECIFICATIONS	METHODOLOGY
Estradiol	≤4.162 pg/mL	CLIA
Progesterone	≤0.208 ng/mL	CLIA
Testosterone	≤0.0371 ng/mL	CLIA
TSH, 3rd Generation	≤0.0062 µIU/mL	CLIA

TOXICOLOGY

Golden West Diagnostics (GWD) consistently supplies high-quality toxicology that can be sampled and purchased off the shelf or be custom tailored to your specifications.

TOXICOLOGY NEGATIVE PRODUCTS

Native human urine & saliva certified negative for drugs of abuse. Please contact us for additional testing information.

OH1060-DF HUMAN SALIVA, TOXICOLOGY NEG.

OH2050 HUMAN URINE, TOXICOLOGY NEG.

OH2050-pH pH TREATED HUMAN URINE TOXICOLOGY NEG.

MSG3200 MASS SPECT GOLD HUMAN SERUM, TOXICOLOGY NEG., LIPID FREE

STEROIDS & HORMONES ZERO FOR TOXICOLOGY

Human urine, saliva, & serum that are processed to be steroids & hormones free in addition to being certified to be drugs of abuse free.

MSG5000 MASS SPECT GOLD HUMAN URINE, ULTRA-LOW HORMONES & STEROIDS, TOXICOLOGY NEG.

Please contact us for testing information.

MSG5200 MASS SPECT GOLD HUMAN URINE, GHB FREE

TEST	SPECIFICATIONS	METHODOLOGY
Gamma-Hydroxybutyric Acid(GHB)	<5.0 mcg/mL	GCMS

Please contact us for additional testing information.

MSG6100 MASS SPECT GOLD HUMAN SALIVA, ULTRA-LOW HORMONES & STEROIDS, TOXICOLOGY NEG.

TEST	SPECIFICATIONS	METHODOLOGY
Estradiol	≤4.162 pg/mL	CLIA
Progesterone	≤0.208 ng/mL	CLIA
Testosterone	≤0.0371 ng/mL	CLIA
TSH, 3rd Generation	≤0.0062 µIU/mL	CLIA

Please contact us for additional testing information.

MASS SPECT GOLD SERUM AND PLASMA ULTRA-LOW VITAMINS

Golden West Diagnostics specializes in providing ultra-low analyte human serums for clinical laboratory testing for ultra-sensitive immunoassay and mass spectrometry. Contact us today and see why our Mass Spect Gold product line is the number one choice in vitamin depleted serum.

MSG1000 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW VITAMIN D, LIPID FREE

TEST	SPECIFICATIONS	METHODOLOGY
25-OH Vitamin D	≤1 ng/mL	LCMS
Vitamin D2	≤1 ng/mL	LCMS
Vitamin D3	≤1 ng/mL	LCMS
Cholesterol	<10 mg/dL	Enzymatic
Triglycerides	<10 mg/dL	GPO

MSG2000 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW VITAMIN D

TEST	SPECIFICATIONS	METHODOLOGY
25-OH Vitamin D	≤1 ng/mL	LCMS
Vitamin D2	≤1 ng/mL	LCMS
Vitamin D3	≤1 ng/mL	LCMS
Cholesterol	As Found	Enzymatic
Triglycerides	As Found	GPO

MSG1300 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW BIOTIN (B7), LIPID FREE

TEST	SPECIFICATIONS	METHODOLOGY
Biotin (Vitamin B7)	<100 pg/mL	Bioassay
Cholesterol	<10 mg/dL	Enzymatic
Triglycerides	<10 mg/dL	GPO

MSG1500 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW VITAMIN A, LIPID FREE

TEST	SPECIFICATIONS	METHODOLOGY
Vitamin A	<5 µg/dL	Liquid Chromatography
Cholesterol	<10 mg/dL	Enzymatic
Triglycerides	<10 mg/dL	GPO

MSG1600 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW VITAMIN K, LIPID FREE

TEST	SPECIFICATIONS	METHODOLOGY
Vitamin K	<0.1 nmol/L	HPLC
Cholesterol	<10 mg/dL	Enzymatic
Triglycerides	<10 mg/dL	GPO

MSG1800 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW VITAMIN A, D, & E, LIPID FREE

TEST	SPECIFICATIONS	METHODOLOGY
Vitamin A	<5 µg/dL	Liquid Chromatography
25-OH Vitamin D	≤1 ng/mL	LCMS
Vitamin E- α -tocopherol	<0.5 mg/L	HPLC
Vitamin E- γ -tocopherol	<0.2 mg/L	HPLC
Cholesterol	<10 mg/dL	Enzymatic
Triglycerides	<10 mg/dL	GPO

MSG1900 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW VITAMIN A, E, & K, LIPID FREE

TEST	SPECIFICATIONS	METHODOLOGY
Vitamin A	<5 µg/dL	Liquid Chromatography
Vitamin K	<0.1 nmol/L	HPLC
Vitamin E- α -tocopherol	<0.5 mg/L	HPLC
Vitamin E- γ -tocopherol	<0.2 mg/L	HPLC
Cholesterol	<10 mg/dL	Enzymatic
Triglycerides	<10 mg/dL	GPO

MSG1916 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW VITAMIN B6, LIPID FREE

TEST	SPECIFICATIONS	METHODOLOGY
Sodium	131 – 151 mmol/L	ISE
Potassium	3.5 – 5.5 mmol/L	ISE
Chloride	85 – 108 mmol/L	ISE
Total Protein	4.8 – 5.5 g/dL	Biuret
Cholesterol	≤10 mg/dL	Enzymatic
Triglycerides	≤10 mg/dL	GPO
Vitamin B6	<5.0 nmol/L	LC-MS/MS
pH	7.0 – 7.5	pH Meter

MSG1917 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW VITAMIN B1, LIPID FREE

TEST	SPECIFICATIONS	METHODOLOGY
Sodium	131 – 151 mmol/L	ISE
Potassium	3.5 – 5.5 mmol/L	ISE
Chloride	85 – 108 mmol/L	ISE
Total Protein	4.8 – 5.5 g/dL	Biuret
Cholesterol	≤10 mg/dL	Enzymatic
Triglycerides	≤10 mg/dL	GPO
Vitamin B1	<2.0 nmol/L	HPLC
pH	7.0 – 7.5	pH Meter

MASS SPECT GOLD GLOBAL REFERENCES

PRODUCT	DESCRIPTION	PRESERVATIVE
MSG 11000M	Males Age 20-50 Serum	None
MSG 11000F	Females Age 20-50 Serum	None
MSG 11500M	Males K2 EDTA Plasma	None
MSG 11500F	Females K2 EDTA Plasma	None

MASS SPECT GOLD SERUM AND PLASMA ULTRA-LOW HORMONES & STEROIDS

Golden West Diagnostics specializes in providing ultra-low analyte human serums for clinical laboratory testing for ultra-sensitive immunoassay and mass spectrometry. Contact us today and see why our Mass Spect Gold is the gold standard in depleted serums and plasmas.

MASS SPECT GOLD HUMAN SERUMS

MSG3000 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW HORMONES & STEROIDS, LIPID FREE

TEST	SPECIFICATIONS	METHODOLOGY
T3	<0.126 ng/mL	CLIA
T4	<0.318 µg/dL	CLIA
TSH	<0.01 µIU/mL	CLIA
Estradiol	<1.0 pg/mL	LCMS
Testosterone	<2.5 ng/dL	LCMS
Progesterone	<0.1 ng/mL	LCMS
Cortisol	<0.270 µg/dL	CLIA
LH	<0.010 mIU/mL	CLIA
Triglycerides	<10 mg/dL	GPO
Cholesterol	<10 mg/dL	Enzymatic
pH	7.0-7.5	pH Meter

MSG3500 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW HORMONES, STEROIDS, AND VITAMIN D

TEST	SPECIFICATIONS	METHODOLOGY
T3	<0.126 ng/mL	CLIA
T4	<0.318 µg/dL	CLIA
TSH	<0.01 µIU/mL	CLIA
Estradiol	<1.0 pg/mL	LCMS
Testosterone	<2.5 ng/dL	LCMS
Progesterone	<0.1 ng/mL	LCMS
Cortisol	<0.270 µg/dL	CLIA
LH	<0.010 mIU/mL	CLIA
Triglycerides	<10 mg/dL	GPO
Cholesterol	<10 mg/dL	Enzymatic
25-OH Vitamin D	<1 ng/mL	LCMS
Vitamin D2	<1 ng/mL	LCMS
Vitamin D3	<1 ng/mL	LCMS
pH	7.0-7.5	pH Meter

MSG4000 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW HORMONES & STEROIDS

TEST	SPECIFICATIONS	METHODOLOGY
T3	<0.126 ng/mL	CLIA
T4	<0.318 µg/dL	CLIA
TSH	<0.01 µIU/mL	CLIA
Estradiol	<1.0 pg/mL	LCMS
Testosterone	<2.5 ng/dL	LCMS
Progesterone	<0.1 ng/mL	LCMS
Cortisol	<0.270 µg/dL	CLIA
Triglycerides	As Found	GPO
Cholesterol	As Found	Enzymatic
FT3	<0.742 pg/mL	CLIA
FT4	<0.280 ng/dL	CLIA
pH	7.0-7.5	pH Meter

MSG7000 MASS SPECT GOLD HUMAN PLASMA, ULTRA-LOW HORMONES & STEROIDS

TEST	SPECIFICATIONS	METHODOLOGY
T3	<0.126 ng/mL	CLIA
T4	<0.318 µg/dL	CLIA
TSH	<0.01 µIU/mL	CLIA
Estradiol	<1.0 pg/mL	LCMS
Testosterone	<2.5 ng/dL	LCMS
Progesterone	<0.1 ng/mL	LCMS
Triglycerides	As Found	GPO
Cholesterol	As Found	Enzymatic
pH	7.0-7.5	pH Meter

MSG3100 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW TESTOSTERONE, LIPID FREE

TEST	SPECIFICATIONS	METHODOLOGY
Androstenedione	<0.030 ng/mL	HPLC-MS/MS

MSG3400 MASS SPECT GOLD HUMAN SERUM, CATECHOLAMINE FREE

TEST	SPECIFICATIONS	METHODOLOGY
Norepinephrine	<20 pg/mL	HPLC
Epinephrine	<20 pg/mL	HPLC
Dopamine	<10 pg/mL	HPLC
Normetanephrine	<0.10 nmol/L	LC-MS/MS
Metanephrine	<0.10 nmol/L	LC-MS/MS

MSG3800 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW 5-HIAA

TEST	SPECIFICATIONS	METHODOLOGY
5-HIAA	<1.0 ng/mL	LC-MS/MS
Triglycerides	<10 mg/dL	GPO
Cholesterol	<10 mg/dL	Enzymatic

MSG8000 MASS SPECT GOLD HUMAN SERUM, ULTRA-LOW LIPIDS

TEST	SPECIFICATIONS	METHODOLOGY
Cholesterol	<10 mg/dL	Enzymatic
Triglycerides	<10 mg/dL	GPO
Apolipoprotein A-1	<20 mg/dL	Quantitative Nephelometry
Apolipoprotein B	<25 mg/dL	Quantitative Nephelometry
HDL Cholesterol	<3 mg/dL	Detergent Solubilization/Enzymatic
LDL Cholesterol	<7 mg/dL	Quantitative Detergent Solubilization/ Enzymatic
Free Fatty Acids	<0.01 mmol/L	Quantitative Spectrophotometry

MSG9000 MASS SPECT GOLD HUMAN SERUM METHYLMALONIC ACID FREE

TEST	SPECIFICATIONS	METHODOLOGY
Methylmalonic Acid	<50 nmol/L	LC/MS-MS
Triglycerides	<10 mg/dL	GPO
Cholesterol	<10 mg/dL	Enzymatic

MASS SPECT GOLD HUMAN SERUM TOXICOLOGY NEG. LIPID FREE

MSG3200 MASS SPECT GOLD HUMAN SERUM TOXICOLOGY NEG. LIPID FREE

Storage: -20°C Source: Defibrinated Plasma Preservative: None
 Filtration: 0.1 µm Country of Origin: USA

Each unit of plasma used in the preparation of this material was tested and found negative or non-reactive for HIV 1/2, HBsAg, HCV, HIV-1 (NAT), HCV(NAT), and RPR by FDA approved methods.

TEST	SPECIFICATIONS	METHODOLOGY
Ethanol	None Detected	GC
Sodium	131-151 mmol/L	ISE
Potassium	3.5-5.5 mmol/L	ISE
Chloride	85-108 mmol/L	ISE
Total Protein	4.8-5.5 g/dL	Biuret
Cholesterol	≤10 mg/dL	Enzymatic
Triglycerides	≤10 mg/dL	GPO
T3	≤0.126 ng/mL	CLIA
T4	≤0.318 µg/dL	CLIA
TSH, 3rd Generation	≤0.01 µIU/mL	CLIA
Progesterone	≤0.1 ng/mL	LCMS
Testosterone	≤2.5 ng/dL	LCMS
Estradiol	≤1.0 pg/mL	LCMS
Cortisol	≤0.270 µg/dL	CLIA
LH	≤0.010 mIU/mL	CLIA
pH	7.0-7.5	pH Meter

ANALYTES SCREENED BY LC/TOF-MS- RESULTS ARE NONE DETECTED

Methylphenidate	para-Fluoroisobutylfentanyl	Thioridazine
Metoclopramide	Paroxetine	Topiramate
Metoprolol	Perphenazine	Tramadol
Mexiletine	Phenazepam	trans-3-Methylfentanyl
Midazolam	Pheniramine	Trazodone
Mirtazapine	Phentermine	Triazolam
Mitragynine	Phenylpropranolamine	Trifluoperazine
N-Ethyl Pentylone	Phenytion	Trihexyphenidyl
Nalbuphine	Primidone	Trimipramine
Naloxone	Prochlorperazine	U-47700
Naltrexone	Promazine	Valeryl Fentanyl
Naproxen	Promethazine	Venlafaxine
Norbuprenorphine - Free	Pseudoephedrine	Verapamil
Norclozapine	Psilocin	Voriconazole
Norfentanyl	Quetiapine	Warfarin
Norflunitrazepam	Quinidine	Sufentanil
Norfluoxetine	Quinine	Tadalafil
Norketamine	Risperidone	Vardenafil
Normeperidine	Sertraline	Xylazine
Norpropoxyphene	Sildenafil	Yohimbine
Norpseudoephedrine	Strychnine	Zolpidem
Nortriptyline	Tapentadol	Zonisamide
O-Desmethyltramadol	Tetrahydrozoline	Zaleplon
O-Desmethylvenlafaxine	TFMPP	Ziprasidone
Olanzapine	Theophylline	

ANALYTES SCREENED BY LC/TOF-MS- RESULTS ARE NONE DETECTED

2-Furanylfentanyl	Clonazepam	Guaifenesin
4-ANPP	Clonidine	Haloperidol
6-Beta-Naltrexol - Free	Clozapine	Hydrocodone
6-Mono-Acetylmorphine	Cocaine	Hydromorphone
7-Amino Flunitrazepam	Cocaine	Hydroxybupropion
7-Amino Clonazepam	Codeine	Hydroxyethylflurazepam
9-Hydroxyrisperidone	Cotinine	Hydroxytriazolam
10-Hydroxycarbazepine	Cyclobenzaprine	Hydroxyzine
Acetaminophen	Cyclopropylfentanyl	Iloperidone
Acetyl Fentanyl	Delorazepam	Imipramine
Acryl Fentanyl	Desalkylflurazepam	Itraconazole
Alfentanil	Desipramine	Ketamine
Alpha-Hydroxylalprazolam	Desmethylclomipramine	Ketoconazole
Alpha-Hydroxyetazolam	Desmethyldoxepin	Lacosamide
Alprazolam	Desmethylsertraline	Lamotrigine
Amirtipryline	Desmethyltrimipramine	Laudanosine
Amlopidine	Desmethyloperamide	Levamisole
Amphetamine	Dextro / Levo Methorphan	Levetiracetam
Aripiprazole	Dextrorphan / Levorphanol	Lidocaine
Amoxapine	Dibutylone	Loperamide
Atomoxetine	Diclazepam	Lorazepam
Atropine	Dicyclomine	Loxapine
Benzotropine	Dihydrocodeine/ Hydrocodol	LSD
Benzoylcegonine	Diltiazem	mCPP
Bromazepam	Diphenhydramine	MDA
Brompheniramine	Diazepam	MDEA
Bupropion	Donepezil	MDMA
Buprenorphine	Doxepin	Memantine
Buspiron	Doxylamine	Meperidine
Butorphanol	Duloxetine	Meprobamate
Butylone	EDDP	Mescaline
Butyrylfentanyl	Ephedrine	Mesoridazine
BZP	Estazolam	Metaxalone
Carbamazepine	Eszopiclone / Zopiclone	Methamphetamine
Carbamazepine-10,11-Epoixide	Etizolam	Methocarbamol
Carfentanil	Fentanyl	Methaqualone
Carisoprodol	Flecainide	Methadone
Chlordiazepoxide	Flubromazepam	Morphine
Chlorpheniramine	Flubromazepam	Nicotine
Chlorpromazine	Flunitrazepam	Nordiazepam
cis-3-Methylfentanyl	Fluphenazine	Oxazepam
Citalopram/Escitalopram	Flurazepam	Oxycodone
Clobazam	Fluvoxamine	Oxymorphone
Clomipramine	Glimepiride	Phencyclidine
Clonazepam	Glipizide	Propoxyphene
	Glyburide	Temazepam

ANALYTES SCREENED BY GCMS- RESULTS ARE NONE DETECTED

Amobarbital	Butabarbital	Butalbital	Phenobarbital	Pentobarbital	Secobarbital
d-methamphetamine	Delta-9-THC-COOH	l-methamphetamine	11-Hydroxy Delta-9-THC		
d-amphetamine	Nitrazepam	l-amphetamine	7-Amino Nitrazepam		
Delta-9-THC					

ANALYTES SCREENED BY EIA RESULTS ARE NONE DETECTED

Barbiturates	Amphetamines	Methadone/Metabolite	Oxycodone
Cannabinoids	Benzodiazepines	Methamphetamine/MDMA	Oxymorphone
Salicylates	Cocaine/Metabolites	Opiates	Phencyclidine

HUMAN WHOLE BLOOD, DRUG FREE*

MSG20500 HUMAN WHOLE BLOOD, DRUG FREE*

Storage: -20°C

Source: Human Whole Blood

Each unit used in the preparation of this material was tested and found negative or non-reactive for HIV 1/2, HBsAg, HCV, HIV-1 (NAT), HBV (NAT), HCV (NAT), and RPR by FDA approved methods.

ANALYTES SCREENED BY LC/TOF-MS- RESULTS ARE NONE DETECTED

Methylphenidate	para-Fluoroisobutyrylfentanyl	Topiramate
Metoclopramide	Paroxetine	Tramadol
Metoprolol	Perphenazine	trans-3-Methylfentanyl
Mexiletine	Phenazepam	Trazodone
Midazolam	Pheniramine	Triazolam
Mirtazapine	Phentermine	Trifluoperazine
Mitragynine	Phenylpropanolamine	Trihexyphenidyl
N-Ethyl Pentylone	Phenytoin	Trimipramine
Nalbuphine	Primidone	U-47700
Naloxone	Prochlorperazine	Valeryl Fentanyl
Naltrexone	Promazine	Venlafaxine
Naproxen	Promethazine	Verapamil
Norbuprenorphine - Free	Pseudoephedrine	Voriconazole
Norclozapine	Psilocin	Warfarin
Norfentanyl	Quetiapine	Sufentanil
Norflunitrazepam	Quinidine	Tadalafil
Norfluoxetine	Quinine	Vardenafil
Norketamine	Risperidone	Xylazine
Normeperidine	Sertraline	Yohimbine
Norpropoxyphene	Sildenafil	Zolpidem
Norpseudoephedrine	Strychnine	Zonisamide
Nortriptyline	Tapentadol	Zaleplon
O-Desmethyltramadol	Tetrahydrozoline	Ziprasidone
O-Desmethylvenlafaxine	Theophylline	
Olanzapine	Thioridazine	

ANALYTES SCREENED BY LC/TOF-MS- RESULTS ARE NONE DETECTED

2-Furanylfentanyl	Clonidine	Haloperidol
4-ANPP	Clozapine	Hydrocodone
6-Beta-Naltrexol - Free	Cocaine	Hydromorphone
6-Mono-Acetylmorphine	Cocaine	Hydroxybupropion
7-Amino Flunitrazepam	Codeine	Hydroxyethylflurazepam
7-Amino Clonazepam	Cyclobenzaprine	Hydroxytriazolam
9-Hydroxyrisperidone	Cyclopropylfentanyl	Hydroxyzine
10-Hydroxycarbazepine	Delorazepam	Iloperidone
Acetaminophen	Desalkylflurazepam	Imipramine
Acetyl Fentanyl	Desipramine	Itraconazole
Acryl Fentanyl	Desmethylclomipramine	Ketamine
Alfentanil	Desmethyldoxepin	Ketoconazole
Alpha-Hydroxylprazolam	Desmethylsertraline	Lacosamide
Alpha-Hydroxyetizolam	Desmethyltrimipramine	Lamotrigine
Alprazolam	Desmethylloperamide	Laudanosine
Amitriptyline	Dextro / Levo Methorphan	Levamisole
Amlopidine	Dextrorphan / Levorphanol	Levetiracetam
Amphetamine	Dibutylone	Lidocaine
Aripiprazole	Diclozepam	Loperamide
Amoxapine	Dicyclomine	Lorazepam
Aripiprazole	Dihydrocodeine/ Hydrocodol	Loxapine
Atomoxetine	Diltiazem	LSD
Atropine	Diphenhydramine	mCPP
Benztropine	Diazepam	MDA
Enzoylcegonine	Donepezil	MDEA
Bromazepam	Doxepin	MDMA
Brompheniramine	Doxylamine	Memantine
Bupropion	Duloxetine	Meperidine
Buprenorphine	EDDP	Meprobamate
Buspirone	Ephedrine	Mescaline
Butorphanol	Estazolam	Mesoridazine
Butylone	Eszopiclone / Zopiclone	Metaxalone
Butyrylfentanyl	Etizolam	Methamphetamine
Carbamazepine	Fentanyl	Methocarbamol
Carbamazepine-10,11-Epoide	Flecainide	Methaqualone
Carfentanil	Flubromazepam	Methadone
Carisoprodol	Flubromazolam	Morphine
Chlordiazepoxide	Flunitrazepam	Nicotine
Chlorpheniramine	Fluphenazine	Nordiazepam
Chlorpromazine	Flurazepam	Oxazepam
cis-3-Methylfentanyl	Fluvoxamine	Oxycodone
Citalopram/Escitalopram	Glimepiride	Oxymorphone
Clobazam	Glipizide	Phencyclidine
Clomipramine	Glyburide	Propoxyphene
Clonazepam	Guaifenesin	Temazepam
Clonazolam		

ANALYTES SCREENED BY LC-MS/MS RESULTS ARE NONE DETECTED

Gabapentin

