



GEMINI
BIO-PRODUCTS

Certificate of Analysis

Created November 30, 2018

Product: **GemCell™ Human Serum AB**
0.1µm sterile-filtered

Catalog #: 100-512

Lot #: H61W00J

Origin: United States (100%)

Manufacture Date: Oct 2018

Expiration Date: Oct 2023

TEST	METHODOLOGY	SPECIFICATION	RESULTS
Biological Testing			
Endotoxin	USP<85>	< 10 EU/mL	<0.500 EU/mL
Hemoglobin	Fleming, AF and Woolf, AJ (1965)	<20.0 mg/dL	6.6 mg/dL
Microbiological Testing			
Sterility	USP<71>		
Bacteria		Not Detected	Pending
Fungi		Not Detected	Pending
Mycoplasma	Barile, MF and Kern, J (1971)	Not Detected	Pending
Viral Testing			
	21 CFR 610.40		
HBsAg		Non-Reactive	Pending
Anti-HCV		Non-Reactive	Pending
Anti-HIV-1/HIV-2		Non-Reactive	Pending
Syphilis		Negative	Pending
HBV-NAT		Not Detected	Pending
HIV-NAT		Not Detected	Pending
HCV-NAT		Not Detected	Pending
Physical Testing			
Osmolality	USP<785>	260-350 mOsm/kg	313 mOsm/kg
pH	USP<791>	Report	7.76



Biochemical Testing

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Albumin		Test and Report	3.1 g/dL
ALT (SGPT)		Test and Report	9 U/L
AST (SGOT)		Test and Report	15 U/L
Bilirubin, Total		Test and Report	0.3 mg/dL
BUN		Test and Report	12 mg/dL
Calcium		Test and Report	>3.75 mM
Chloride		Test and Report	111 mM
Cholesterol		Test and Report	127 mg/dL
Creatinine		Test and Report	0.78 mg/dL
Glucose		Test and Report	5.16 mM
Phosphorus		Test and Report	0.90 mM
Potassium		Test and Report	3.7 mM
Protein, Total	Biuret	Test and Report	4.9 g/dL
Sodium		Test and Report	158 mM
Triglycerides		Test and Report	60 mg/dL
Uric Acid		Test and Report	3.6 mg/dL

All human blood products are collected from stringently screened male donors at FDA-licensed collection centers in the United States. Results shown were obtained by carefully performed methods believed to be reliable. As some results may vary for specific tests depending upon methodology and other variables, it is suggested that tests for which results are particularly important be repeated by the user of this product. Lot specific samples are available at the customer's request and users are encouraged to evaluate the sample prior to purchase. Precipitates may develop in this product upon freezing and/or thawing; this occurrence does not impact culture performance.

CAUTION: For Cell Culture, further Manufacturing and Research use only. Not for direct Therapeutic use. It is the responsibility of the user to undertake verification and testing to determine the suitability of this product's application. The statements herein are offered for informational purposes and are intended to be used solely for your consideration, investigation and verification.

[Handwritten Signature] 11/30/2018

 Created by/ date

[Handwritten Signature] 11/30/2018

 Verified by/ date