

Certificate of Analysis

FBS Analog

FBS Performance Alternative
Bovine Calf Serum
Sterile filtered

Country of Origin USA
Processed in USA

Lot/Batch Number:	280A14
Catalog Number:	FBSA-US-1L
Expiration Date:	November 2025
Store at:	-10°C to -20°C

Date of CoA: 13.11.2020

1) Physical, Chemical and Protein Analysis:

Test	Method	Specifications	Result	Units
Albumin	Vet Test Kit	Test and Report	3.7	g/dL
Alpha 1	Cellulose Acetate	Test and Report	0.4	g/dL
Alpha 2	Cellulose Acetate	Test and Report	0.8	g/dL
Beta 1	Cellulose Acetate	Test and Report	1.0	g/dL
Beta 2	Cellulose Acetate	Test and Report	0.4	g/dL
Endotoxin	LAL Kinetic, USP 85	Test and Report	< 2	EU/ml
Gamma 1 & 2	Cellulose Acetate	Test and Report	0.6	g/dl
Hemoglobin	Fleming & Woolf	Test and Report	8.6	mg/dl
Osmolality	USP 785	Test and Report	289	mOsmo/kg
pH	USP 791	Test and Report	7.37	n.a.
Total Protein	Biuret	Test and Report	6.9	g/dL

2) Sterility and Virus Testing

Test	Method	Specifications	Result	Units
Aerobic Bacteria	Current USP/EP 2.6.1	not detected	not detected	n.a.
Anaerobic Bacteria	Current USP/EP 2.6.1	not detected	not detected	n.a.
Fungi (Yeast & Mold)	Current USP/EP 2.6.1	not detected	not detected	n.a.
Mycoplasma	Barile & Kern, Large Volume	not detected	not detected	n.a.
Bluetongue	9 CFR 113.53c	negative	Negative	n.a.
Bovine Adenovirus	9 CFR 113.53c	negative	Negative	n.a.
Bovine Parvovirus	9 CFR 113.53c	negative	Negative	n.a.
Bovine Respiratory Syncytial Virus	9 CFR 113.53c	negative	Negative	n.a.
Rabies	9 CFR 113.53c	negative	Negative	n.a.
Reovirus	9 CFR 113.53c	negative	Negative	n.a.
Cytopathogenic Agents (IBR)	9 CFR 113.53c	negative	Negative	n.a.
Hemadsorbing Agents (PI 3)	9 CFR 113.53c	negative	negative	n.a.

3) Cell Culture

Test	Method	Specifications	Result	Units
Suspension Cells (CHO)	Growth Promotion	90 – 119	100,7	%
Adherent Cells	Growth Promotion	90 – 119	132,9	%

4) Biochemistry

Test	Method	Specifications	Result	Units
Alkaline Phosphatase	Vet Test	Test and Report	202	U/L
ALT (SGPT)	Vet Test	Test and Report	12	U/L
AST (SGOT)	Vet Test	Test and Report	80	U/L
Bilirubin (Total)	Vet Test	Test and Report	0.4	mg/dL
Calcium	Vet Test	Test and Report	9.0	mg/dL
Chloride	Vet Test	Test and Report	101	mEq/L
Cholesterol	Vet Test	Test and Report	116	mg/dL
Creatinine	Vet Test	Test and Report	0.9	mg/dL
Glucose	Vet Test	Test and Report	135	mg/dL
Iron	Vet Test	Test and Report	615	ug/dL
Lactate Dehydrogenase	Vet Test	Test and Report	1147	IU/L
Percent Saturation-Iron	Vet Test	Test and Report	66	%
Phosphorus	Vet Test	Test and Report	9.2	mg/dL
Potassium	Vet Test	Test and Report	6.0	mEq/L
Sodium	Vet Test	Test and Report	144	mEq/L
Total Iron binding Capacity	Vet Test	Test and Report	929	ug/dL
Triglyceride	Vet Test	Test and Report	21	mmol/l
Urea Nitrogen (BUN)	Vet Test	Test and Report	8	mg/dL
Uric Acid	Vet Test	Test and Report	1.9	mg/dL

Product meets EU requirements for production of technical blood products.

This product was manufactured from bovine calf blood collected exclusively from approved harvest facilities. All bovine calf serum used in this product is derived from calves that are of United States origin and have passed ante- and post-mortem inspection. All harvest facilities are USDA inspected and located within the continental United States of America. All collection and processing activities are performed under the strict guidance of standard operating procedures.

This product was processed aseptically using 0.2 µm filters as final filters. Filters are tested for integrity prior to sterilization and after use. This product was filled into sterile 1,000 ml jugs.

For in-vitro diagnostic, research and further manufacturing use only – Not for human or animal consumption

Dr. Peter Haeusl
 Managing Director
 Biophyll GmbH