

## VWR LIFE SCIENCE SERADIGM SERUM PRODUCTS

Performance & Quality  
Unlike Any Other

Options for Every  
Application & Budget

ISIA Certified  
Traceability



## PRODUCT PERFORMANCE & QUALITY UNLIKE ANY OTHER

VWR is a fully-integrated supplier of animal sera that provides the cell culture community with access to the most reliable supply of high performance, exceptional quality Fetal Bovine Serum (FBS) and cost-effective FBS alternatives. Our approach to sourcing and manufacturing is refreshingly unique and distinct from the competition, resulting in product performance and quality unlike any other.

**Product Differentiation Table**

	FBS Products			FBS Alternatives		
	Ultimate Grade FBS	Premium Grade FBS	Ultra Low IgG FBS	FB Essence	Bovine Calf Serum, Iron Supplemented	
<b>COUNTRY OF ORIGIN</b>	100% US Origin					
<b>PRODUCT FEATURES</b>	Single-Use Filtration Technology	X	X	X	X	
	Cold Chain Manufactured	X	X		X	
	Class 100 Cleanroom Manufactured	X	X		X	
	Triple 0.1µm Sterile Filtered	X	X	X	X	
	Homogenous Lots	X	X	X	X	X
	Independently Tested by Third-Party Laboratories	X	X	X	X	X
<b>SPECIFICATIONS</b>	ISIA <sup>†</sup> Certified Traceability	X	X	X	X	
	Endotoxin	≤ 10	≤ 20	≤ 20	≤ 20	
	Hemoglobin	≤ 25	≤ 25	≤ 25	≤ 25	≤ 30
	9CFR Virus Testing, Sterility, Mycoplasma	X	X	X	X	X
	Biochemical Assay	X	X	X	X	X
	Electrophoretic Profile	X	X	X	X	X
	Additional Virus Testing by qPCR Technology	X				
	Single-Sourced from 1 USDA Approved Facility	X				
	Certified US Originating Animals Only	X				
Enhanced Traceability & Regulatory Compliance	X					

<sup>†</sup>International Serum Industry Association (serumindustry.org)

### Universal Product Features\*

- Quality you can see — crystal clear sera, vibrant amber color, and absence of turbidity and flocculent matter
- Superior final product performance, quality, traceability, and lot-to-lot consistency
- More nutritionally rich sera due to preservation of performance-enhancing factors
- Low endotoxin and hemoglobin levels as indicators of overall product quality
- Bottle-to-bottle consistency within lots through proprietary, whole-lot homogenization technology

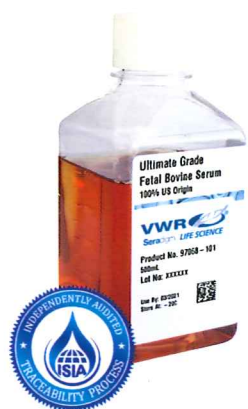
\*Some features do not apply to BCS.

The care and attention devoted to the manufacture of VWR Life Science Seradigm serum products generates final test results that are substantially lower than set specifications. See lot-specific Certificates of Analysis for actual test results.



## VWR LIFE SCIENCE SERADIGM FETAL BOVINE SERUM (FBS)

VWR offers 100% US Origin Fetal Bovine Serum (FBS) in various grades providing customers with the best product for their application and budget.



### VWR Life Science Seradigm Ultimate Grade Fetal Bovine Serum (FBS)

Ultimate Grade FBS is the ultimate in product quality and viral safety, undergoing additional BVD virus testing using qPCR technology. Proprietary collection and production techniques provide additional features that elevate product quality, enhance traceability, and improve regulatory compliance. Ultimate Grade FBS is 100% US origin.

Process	Size, mL	Cat. No.	Unit
None	50	89510-198	Each
Heat Inactivated	50	89510-200	Each
None	500	97068-101	Each
Heat Inactivated	500	97068-107	Each

Gamma Irradiation available upon request.



### VWR Life Science Seradigm Premium Fetal Bovine Serum (FBS)

Premium Grade FBS is widely used by cell culturists requiring high quality, high performance FBS for a wide variety of applications. Premium Grade FBS offers industry standard quality features such as triple 0.1µm sterile filtration and lot-to-lot consistency. Premium Grade FBS features proprietary manufacturing technology to preserve performance-enhancing factors. Premium Grade FBS is 100% US origin.

Process	Size, mL	Cat. No.	Unit
None	50	89510-194	Each
Heat Inactivated	50	89510-196	Each
None	500	97068-085	Each
Heat Inactivated	500	97068-091	Each

Gamma Irradiation available upon request.



### VWR Life Science Seradigm Ultra Low IgG Fetal Bovine Serum (FBS)

Ultra Low IgG FBS is purified of immunoglobulin (IgG) using a chromatographic process that delivers significantly reduced levels of IgG ( $\leq 5\mu\text{g}/\text{mL}$ ). Ultra low IgG FBS is ideal for cell culture and protein purification applications where naturally occurring levels of IgG are too high. Ultra Low IgG FBS is 100% US origin.

Process	Size, mL	Cat. No.	Unit
None	50	10018-828	Each
Heat Inactivated	50	10018-832	Each
None	500	10018-826	Each
Heat Inactivated	500	10018-830	Each

Gamma Irradiation available upon request.



## VWR Life Science Seradigm FB Essence

FB Essence is a nutritionally rich, cost-effective alternative to Fetal Bovine Serum (FBS) and is proven effective across a broad range of cell types and origins, including both suspension and adherent cell types and recognized finicky cell lines. FB Essence contains FBS, Bovine Calf Serum, Equine Serum, and a proprietary blend of supplements, vitamins, minerals, and growth factors. FB Essence is 100% US Origin.

Process	Size, mL	Cat. No.	Unit
None	50	10805-184	Each
Heat Inactivated	50	10799-384	Each
None	500	10803-034	Each
Heat Inactivated	500	10799-390	Each

Gamma Irradiation available upon request.



## VWR Life Science Seradigm Iron Supplemented Bovine Calf Serum (BCS)

Iron Supplemented Bovine Calf Serum is sourced from US origin animals, aged up to six months and raised on a diet consisting mainly of formula. Due to their unique diet, source animals have naturally high levels of transferrin. When the serum is supplemented with iron, the iron binds to the unbound transferrin, resulting in a product with three to four times the amount of available iron compared to FBS or equine serum. This product is an excellent, cost-effective alternative to FBS and often performs as well as FBS in many established cell lines. In some applications, it even out-performs FBS and equine serum. Iron Supplemented Bovine Calf Serum is 100% US Origin.

Process	Size, mL	Cat. No.	Unit
None	50	10158-360	Each
Heat Inactivated	50	10805-178	Each
None	500	10158-358	Each
Heat Inactivated	500	10799-386	Each
None	1000	10153-134	Each
Gamma Irradiated*	1000	10153-136	Each

\* Gamma Irradiation available upon request.



### ISIA Certified Traceability

The International Serum Industry Association (ISIA) has established industry standards and certification programs to aid sera users in substantiating the integrity of serum products. The ISIA has implemented a rigid program of independent audits to verify compliance with traceability standards. Elite status as an ISIA Traceability Certified supplier is awarded to those that demonstrate full compliance with ISIA guidelines and are the subject of a successful audit. Further, the ISIA has established strict guidelines for product quality testing and reporting on documents like Certificates of Analysis (CoA). Sera users should source exclusively from ISIA-certified companies to ensure traceability and product quality; a list of certified suppliers, filtration partners, and raw material providers is maintained on the ISIA's website ([www.serumindustry.org/traceability.htm](http://www.serumindustry.org/traceability.htm)).

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