

# VWR essential products for tissue culture

01. MANUFACTURED IN A  
CLASS 100 CLEANROOM  
ENVIRONMENT

02. STERILIZED BY GAMMA  
IRRADIATION

03. CERTIFIED  
NON-PYROGENIC



# VWR tissue culture essentials

The VWR Collection has three lines of tissue culture essentials to meet your laboratory needs. Flasks, dishes, and multi-well plates are available across all three lines.

Each of the three essential lines are defined as listed below:

- Products with a standard plasma cell culture treatment
- Products with a treatment for increased cell attachment
- Non-treated cell culture products



# VWR tissue culture products, plasma treated

Designed for your routine tissue culture activities, VWR plasma-treated tissue culture products provide consistent performance at a great value. VWR's flasks, dishes, and plates have been plasma treated to ensure uniform cell adhesion, spreading, and growth. All tissue culture products are manufactured in a Class 100,000 cleanroom environment, produced with 100% USP VI crystal virgin polystyrene, sterilized by gamma irradiation to  $10^{-6}$ , and certified non-pyrogenic.

Consistent performance at a great value



## VWR® MULTI-WELL CELL CULTURE PLATES

- Uniform well volume ensures equal growth surface area
- Raised rims on wells with uniform rings on the lid to reduce evaporation
- Single position lid reduces the risks of contamination and mishandling
- Wells with alpha-numeric code for easy identification
- Individually packed in peel-to-open paper/plastic blister pack

## VWR® TISSUE CULTURE DISHES

- Flat bottom, uniform wall thickness ensure distortion-free bottom
- Stacking rings for easier stacking and handling
- 60, 70, and 100mm dishes are designed with gripping ring
- Packed in zip resealable self-standing bags so that the dishes remain upright and the risk of contamination is reduced
- Every inner bag is printed with batch number for traceability

Number of Wells	Max. Well Volume, mL (Single Well)	Working Volume, mL (Single Well)	Growth Area, cm <sup>2</sup>	Cat. No.	Case of
6	17.00	1.90 – 2.90	9.60	10062-892	100
12	6.80	0.76 – 1.14	3.85	10062-894	100
24	3.50	0.38 – 0.57	1.93	10062-896	100
48	1.55	0.19 – 0.29	0.84	10062-898	100
96 F	0.39	0.075 – 0.20	0.33	10062-900	100
96 U	0.32	0.32	0.32	10062-902	100

Dia., cm	Growth Area, cm <sup>2</sup>	Cat. No.	Case of
3.5	8.5	10062-888	960
6	21.2	10062-890	600
7	36.3	10062-876	600
9	55.0	10062-878	500
10	60.8	10062-880	300
15	143.0	10062-882	120



## VWR® CELL CULTURE FLASKS

These flasks are perfect for cell growth and cell yields.

**Vented caps** incorporate a 0.22µm hydrophobic filter to allow gas exchange and minimize risk of contamination.

**Plug seal caps** can be used in closed systems (providing a liquid and gas shear seal) or used in open systems (simply unscrew the cap one-quarter of a turn).

- Innovative angled neck design offers good pipet and cell scraper access
- Upper triangular and wider base shape provides better stability
- Volume graduations on both sides with special writing area
- Packed in zip resealable self-standing bags so the flasks remain upright and the risk of contamination is reduced
- Every inner bag is printed with batch number for traceability
- Available with two different HDPE caps used in both open and closed systems

Capacity, mL	Growth Area, cm <sup>2</sup>	Cap Type	Cat. No.	Case of
25	12.5	Vented	10062-868	200
25	12.5	Plug-seal	10062-870	200
50	25.0	Vented	10062-872	200
50	25.0	Plug-seal	10062-874	200
250	75.0	Vented	10062-860	100
250	75.0	Plug-seal	10062-862	100
600	182.5	Vented	10062-864	40
600	182.5	Plug-seal	10062-866	40
850	300.0	Vented	10062-884	18
850	300.0	Plug-seal	10062-886	18



## VWR® TISSUE CULTURE PLATE INSERTS

Clear, sterile, general polystyrene (GPPS) with polycarbonate (PC) or polyester (PET) membrane are treated for optimal cell attachment. The plate inserts are sterile and assembled with 6-, 12-, or 24-well plates and resist most fixing and staining agents.

They are manufactured under ISO13485:2016 and ISO9001:2015 quality management system.

Temperature range: -20°C to +50°C

- Non-pyrogenic
- Sterilized by gamma irradiation SAL 10<sup>-6</sup> (ISO11137)
- Shelf life: 3 years after month of production
- Non-autoclavable

Membrane Dia., mm	Membrane Type	Pore Size, µm	Growth Area, cm <sup>2</sup>	Cat. No.	Inserts/Plate	Plates/Case
<b>6-Well Plates</b>						
24	PET	0.1	4.78	10769-182	6	24
24	PET	0.4	4.78	10769-192	6	24
24	PET	1.0	4.78	10769-184	6	24
24	PET	3.0	4.78	10769-194	6	24
24	PET	8.0	4.78	10769-196	6	24
24	PC	0.1	4.78	10769-176	6	24
24	PC	0.4	4.78	10769-186	6	24
24	PC	1.0	4.78	10769-178	6	24
24	PC	3.0	4.78	10769-188	6	24
24	PC	8.0	4.78	10769-190	6	24
24	PC	12.0	4.78	10769-180	6	24
<b>12-Well Plates</b>						
12	PET	0.1	1.12	10769-204	12	48
12	PET	0.4	1.12	10769-214	12	48
12	PET	1.0	1.12	10769-206	12	48
12	PET	3.0	1.12	10769-216	12	48
12	PET	8.0	1.12	10769-218	12	48
12	PC	0.1	1.12	10769-198	12	48
12	PC	0.4	1.12	10769-208	12	48
12	PC	1.0	1.12	10769-200	12	48
12	PC	3.0	1.12	10769-210	12	48
12	PC	8.0	1.12	10769-212	12	48
12	PC	12.0	1.12	10769-202	12	48
<b>24-Well Plates</b>						
6.5	PET	0.1	0.33	10769-226	12	48
6.5	PET	0.4	0.33	10769-238	12	48
6.5	PET	1.0	0.33	10769-228	12	48
6.5	PET	3.0	0.33	10769-240	12	48
6.5	PET	8.0	0.33	10769-242	12	48
6.5	PC	0.1	0.33	10769-220	12	48
6.5	PC	0.4	0.33	10769-230	12	48
6.5	PC	1.0	0.33	10769-222	12	48
6.5	PC	3.0	0.33	10769-232	12	48
6.5	PC	5.0	0.33	10769-236	12	48
6.5	PC	8.0	0.33	10769-234	12	48
6.5	PC	12.0	0.33	10769-224	12	48

# VWR tissue culture products, increased cell attachment

The VWR tissue culture products for increased cell attachment line improves cell spreading and attachment. These products are suitable for cells that may adhere poorly due to cell phenotype, stressful culture conditions, or those which normally require additional biological coatings for attachment.

The special surface treatment increases the hydrophilic level of the surface to reach a water drop contact angle at less than 10 degrees. This increased hydrophilic surface will allow a wider range of cells to easily attach to the surface of our culture products, especially sensitive cells such as neuronal cells and primary cell lines.

All tissue culture products are:

- Manufactured in a class 100 cleanroom environment
- Produced with 100% USP VI crystal virgin polystyrene
- Sterilized by gamma irradiation to  $10^{-6}$
- Certified non-pyrogenic

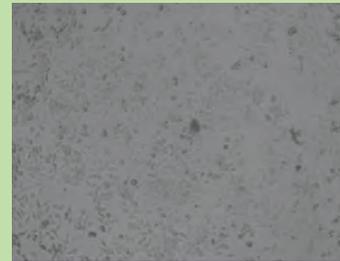
Treated products have a plasma treatment that ensures consistent cell attachment, spreading, and growth. Our collection provides a great value for your tissue culture work, allowing you to maximize your budget.



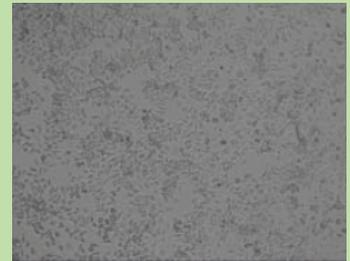
3T3 VWR 96-well plate: normal



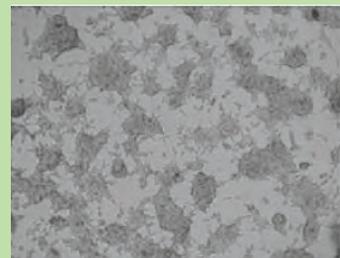
3T3 VWR 96-well plate: cell-attach, sprayed, after aging test



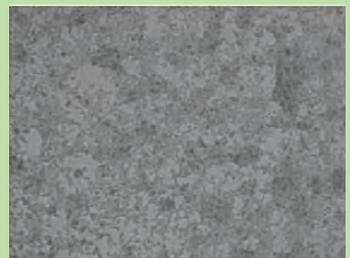
LNCaP-A VWR 50mL flask: normal



LNCaP-A VWR 50mL flask: cell-attach, sprayed, after aging test



293T VWR 6-well plate: normal



293T VWR 6-well plate: cell-attach, sprayed, after aging test

Side-by-side testing of VWR plasma treated vs. VWR increased cell attachment products



**VWR® CELL CULTURE PLATES TREATED FOR INCREASED CELL ATTACHMENT**

- Uniform well volume ensures an equal growth surface area
- Flat well bottom and round bottom plates available
- Well surface is smooth and free from striation to maximize usable growth area
- Raised rims on wells with uniform rings on the lid to reduce evaporation
- Single position lid reduces the risk of cross-contamination and handling mistakes
- Wells are labeled with alphanumeric code for easy identification
- Suitable for all common instruments and automation

Number of Wells	Max. Well Volume, mL (Single Well)	Working Volume, mL (Single Well)	Growth Area, cm <sup>2</sup>	Cat. No.	Case of
6	17.00	1.90 – 2.90	9.60	<b>10861-696</b>	100
12	6.80	0.76 – 1.14	3.85	<b>10861-698</b>	100
24	3.50	0.38 – 0.57	1.93	<b>10861-700</b>	100
48	1.55	0.19 – 0.29	0.84	<b>10861-702</b>	100
96 F	0.39	0.075 – 0.20	0.33	<b>10861-666</b>	100
96 U	0.32	0.32	0.32	<b>10861-668</b>	100



**VWR® CELL CULTURE FLASKS FOR INCREASED CELL ATTACHMENT**

- Flask surface is flat and free from striation to maximize usable growth area
- Two different cap styles can be used in both open and closed systems
- Innovative angled neck design offers good pipet and cell scraper access
- Triangular top with wide base provides stability
- Protruding ridge on the back side of the flask enables easy stacking
- Special area near the neck for easy marking/writing
- Engraved graduations on multiple sides
- Strict integrity tested

Capacity, mL	Growth Area, cm <sup>2</sup>	Cap Type	Cat. No.	Case of
25	12.5	Vented	<b>10861-670</b>	200
25	12.5	Plug-seal	<b>10861-672</b>	200
50	25.0	Vented	<b>10861-640</b>	200
50	25.0	Plug-seal	<b>10861-642</b>	200
250	75.0	Vented	<b>10861-644</b>	100
250	75.0	Plug-seal	<b>10861-646</b>	100
600	182.5	Vented	<b>10861-648</b>	40
600	182.5	Plug-seal	<b>10861-650</b>	40
850	300.0	Vented	<b>10861-652</b>	18
850	300	Plug-seal	<b>10861-654</b>	18



**VWR® CELL CULTURE DISHES FOR INCREASED CELL ATTACHMENT**

- Flat bottom, uniform wall thickness ensures distortion-free bottom
- Rim on the bottom side of the lid mates with the dish brim for easy and secure stacking
- Numeric scale divides dish into quadrants for easy orientation

Dia., cm	Growth Area, cm <sup>2</sup>	Cat. No.	Case of
3.5	8.5	<b>10861-656</b>	240
6	21.2	<b>10861-658</b>	240
7	36.3	<b>10861-660</b>	240
9	55	<b>10861-662</b>	240
10	60.8	<b>10861-680</b>	240
15	143	<b>10861-682</b>	80

# VWR tissue culture products, non-treated

VWR's non-treated tissue culture products have been designed for use in cell suspension applications where cell attachment is not desired. The crystal clear non-treated hydrophobic surface will minimize the attachment for suspension cells and maximize their overall viability. All non-treated plates, dishes, and flasks are sterilized by gamma irradiation and are non-pyrogenic.

Minimize the attachment for suspension cells



## VWR® TISSUE CULTURE PLATES, NON-TREATED

- Uniform well volume
- Flat well bottom and round bottom plates available
- Well surface is smooth and free from striation
- Alphanumerically coded for easy identification
- Suitable for all common instruments and automation

No. of Wells	Max. Well Volume, mL (Single Well)	Working Volume, mL (Single Well)	Growth Area, cm <sup>2</sup>	Cat. No.	Case of
1	73	10-40	97	75780-348	100
4	1.813	1	1.96	10813-630	100
6	17	0.76-1.14	3.85	10861-554	100
12	6.8	0.38-0.57	1.93	10861-556	100
24	3.5	0.19-0.29	0.84	10861-558	100
48	1.55	0.075-0.20	0.33	10861-560	100
96 F	0.39	0.075-0.20	0.32	10861-562	100
96 U	0.32	1.90-2.90	9.6	10861-564	100
384	0.127	0.01-0.1	0.1135	10814-224	100

## VWR® TISSUE CULTURE DISHES, NON-TREATED

- Dish surface is smooth and free from striation
- Easy and secure stacking

Dia., cm	Growth Area, cm <sup>2</sup>	Cat. No.	Case of
3.5	8.5	10861-586	960
6	21.2	10861-588	600
7	36.3	10861-590	600
9	55	10861-592	500
10	60.8	10861-594	300
15	143	10861-596	120



## VWR® TISSUE CULTURE FLASKS, NON-TREATED

- Flask surface is flat and free from striation to maximize usable growth area
- Two different cap styles can be used in both open and closed systems
- Innovative angled neck design offers good pipet and cell scraper access
- Triangular top with wide base provides stability
- Protruding ridge on the back side of the flask facilitates stacking
- Special area near the neck for easy marking/writing
- Engraved graduations on multiple sides
- Strict integrity tested

Capacity, mL	Working Volume, mL	Cap Type	Cat. No.	Case of
25	20	Plug Seal	10861-566	200
25	20	Vent	10861-568	200
50	40	Plug Seal	10861-570	200
50	40	Vent	10861-572	200
250	175	Plug Seal	10861-574	100
250	175	Vent	10861-576	100
600	400	Plug Seal	10861-578	40
600	400	Vent	10861-580	40
850	800	Plug Seal	10861-582	18
850	800	Vent	10861-584	18



**VWR® INVERTED MICROSCOPES**

The VWR® Inverted Microscope is used for live cell and advanced applications. The VWR® Inverted Fluorescence Microscope is ideal for applications in biology, cell cytology, genetics, oncology, and immunology. Both are also well suited for research, universities, routine laboratory, and medical demands.

- Trinocular Siedentopf tube with 45° inclination
- One-year warranty on electrical parts
- Five-year warranty on mechanical parts and optics

Description	Cat. No.	Unit
VWR Inverted Microscope	89404-462	Each
VWR Inverted Fluorescence Microscope	89404-464	Each



**VWR® STORAGE/MEDIA BOTTLES**

These bottles are designed with a wide opening (30mm I.D.) and a drip-free polypropylene pour ring. They are manufactured from borosilicate glass and can be autoclaved to 180°C (356°F). Bottles come with standard GL45 polypropylene caps.

- Wide mouth opening with drip-free pour ring
- Enhanced graduations and permanent white enamel marking spots

Capacity	Graduation Interval, mL	Graduation Range, mL	Cat. No.	Case of
100 mL (3.4 oz.)	10	20–80	10754-814	10
250 mL (8.4 oz.)	25	50–200	10754-816	10
500 mL (16.9 oz.)	50	100–400	10754-818	10
1 L (33.8 oz.)	50	100–900	10754-820	10
2 L (67.6 oz.)	100	400–1800	10754-822	10
5 L (1.3 gal.)	250	1000–4500	10754-824	1
10 L (2.6 gal.)	500	2000–9000	10754-826	1

**VWR® ROLLER BOTTLES**

These clear polystyrene, non-pyrogenic bottles have a silk-printed graduated scale and include high-density polyethylene caps.

They are manufactured in a class 100,000 cleanroom environment under EN ISO13485:2003 and ISO9001:2008 quality management system. Each package case has a labeled lot number.

Temperature Range: -20°C to +50°C

- Sterilized by gamma irradiation; SAL 10<sup>-6</sup> (ISO11137)
- Shelf life: three years after month of production
- Non-autoclavable



Capacity, mL	Cell Growth Area, cm <sup>2</sup>	Cap Style	Cat No.	Bottle/Bag	Bottles/Case
1000	490	Plug Seal	10769-794	2	40
2000	850	Plug Seal	10769-800	2	40
2000	850	Plug Seal	10769-798	5	40
2000	850	Plug Seal	10769-796	20	20
2000	1900	Vented*	10769-802	5	40

\*0.22µm Hydrophobic Membrane for use with vented cap only

**VWR® CELL SCRAPERS**

Specially developed to make the process of scraping off and collecting cells easier and more effective. Available with two blade positions: scraper for use in flasks and lifter for use in harvesting cells (specifically stem cells) in dishes.

- Cross-ribbed handle in ABS provides a greater rigidity and ensures a better control while scraping cells
- Thin, flexible blade in TPE prevents damaging cells
- Individually wrapped, sterilized by gamma irradiation
- Non-pyrogenic



Description	Blade Position	Length, cm (in.)	Blade Width, mm	Cat. No.	Case of
Cell Scraper for Dishes	Lifter	25 (9 <sup>7</sup> / <sub>8</sub> )	20	10062-906	100
Cell Scraper for Dishes	Lifter	39 (15 <sup>3</sup> / <sub>8</sub> )	30	10062-910	100
Cell Scraper for Flasks	Scraper	25 (9 <sup>7</sup> / <sub>8</sub> )	20	10062-904	100
Cell Scraper for Flasks	Scraper	39 (15 <sup>3</sup> / <sub>8</sub> )	30	10062-908	100



**VWR® GENERAL PURPOSE WATER BATHS**

Versatile general purpose water bath with digital display, programmable timer, programmable high limit, programmable calibration/temperature offset, three programmable preset temperatures, and audible alarm standard.

- Comes with a high-clearance lid
- Removable bottom diffuser tray
- Built-in countdown timer

Capacity	Overall Dimensions, L x W x H, cm	Working Dimensions, L x W x D, cm	Cat. No.	Unit
5 L	36.8 x 30.5 x 34.3	12.7 x 27.4 x 14	89501-464	Each



**VWR® GENERAL PURPOSE CENTRIFUGE CELL CULTURE PACKAGE**

- Robust & steady, temperature control system; refrigerated unit features a pre-cool function from -20 to +40°C
- Quiet operation (as quiet as normal conversation)
- FDA registered centrifuge manufacturer
- Speed: 45,000 rpm
- RCF: 3,260 g
- Five-year warranty

Centrifuge package includes: centrifuge, horizontal rotor, four buckets, and eight 15 mL adapters. Rotor package includes: swing-out rotor, four buckets, and eight adapters and inserts for 15/50 mL conical tubes.

Description	Cat. No.	Unit
General Purpose Centrifuge Package, Ambient	10830-762	Each
General Purpose Centrifuge Package, Refrigerated	10830-764	Each
Cell Culture Rotor Package	10830-778	Each



**VWR® ADVANCED 3500 ORBITAL SHAKER AND DURA-SHAKER**

Designed for a wide range of applications including cell cultures that require CO<sub>2</sub> and humidity for optimal cell growth. The Dura-Shaker is designed to withstand 100% humidity. The microprocessor control provides consistent uniform shaking while safely ramping to the set speed.

- Dura-Shaker's remote controller magnetically attaches to most incubators
- Exclusive Accu-Drive® shaking system
- Five-year warranty on parts and labor

Description	Orbit Size, mm, in.	Speed Range, rpm	Cat. No.	Unit
Model 3500 Advanced Shaker	19 (3/4)	15-500	89032-096	Each
Dura-Shaker	19 (3/4)	15-500	10159-960	Each



**VWR® AIR-JACKETED CO<sub>2</sub> INCUBATORS**

Enhanced safety features include HEPA filtration and high heat sterilization cycle. The VWR® Air Jacketed CO<sub>2</sub> Incubator offers two levels of security for your valuable cell cultures.

- 6.5 cu. ft. internal volume
- Removable water pan and four shelves included
- In-chamber probes and sensors for precise control
- Easy assembly and disassembly of interior without tools
- Dual stack configurations include mobile support stand and stacking kit to maximize lab space

Description	Cat. No.	Unit
TC Sensor	10810-902	Each
IR Sensor	10810-944	Each
Dual TC Sensor	10811-002	Each
Dual IR Sensor	10811-004	Each



**VWR® MANUAL DEFROST LABORATORY FREEZER**

Purpose-built for critical cold storage applications, but where built-in data logging functionality may not be a necessity.

- Temperature display and alarm module offers an array of robust security features
- Sample simulated temperature display
- Inner "fast-freeze compartments" with doors for temperature maintenance and recovery

Electrical	Capacity, L (cu. ft.)	Exterior Dimensions W x D x H, in.	No. of Shelves	Cat. No.	Unit
115V, 60Hz, 5A	566 (20)	34 x 33 3/4 x 73 1/4	4	10819-388	Each



**VWR® ULTRA-LOW TEMPERATURE UPRIGHT FREEZER**

Designed and constructed for long-term performance, these freezers represent the leading choice of laboratory professionals for applications where temperature control is critical.

- Microprocessor temperature control system
- Advanced monitor/alarm system
- Automatic voltage compensator
- Cascade refrigeration system
- Non-CFC, Non-HFCF, nonflammable refrigerants

Electrical	Capacity, L (cu. ft.)	Exterior Dimensions W x H x D, in.	Temperature Range	Cat. No.	Unit
120V, 60Hz	651 (23)	41 x 78 x 37	-86 to -50°C (-123 to -58°F)	10160-732	Each

# VWR Life Science cell culture media and reagents



## CLASSICAL MEDIA, BUFFERED SALT SOLUTIONS, AND SUPPLEMENTS & REAGENTS

### Dulbecco's Modified Eagle's Medium (DMEM)

A modification of Basal Medium Eagle (BME), Dulbecco's Modified Eagle's Medium contains approximately four times as much vitamins and amino acids and two to four times as much glucose as the original formulation. DMEM is suitable for most types of cells, including human, monkey, hamster, rat, and mouse. DMEM is available in a variety of formulations including high or low glucose, with or without sodium pyruvate, and with or without L-glutamine.

### RPMI-1640

RPMI-1640 was developed by Moore et. al. at Roswell Park Memorial Institute, hence the acronym RPMI. The formulation is based on the RPMI-1630 series of media utilizing a bicarbonate buffering system and alterations in the amounts of amino acids and vitamins. RPMI-1640, when properly supplemented, has demonstrated wide applicability for supporting growth in many types of cultured cells.

### Dulbecco's Phosphate Buffered Saline (DPBS)

Dulbecco's Phosphate Buffered Saline is a balanced salt solution used for the handling and culturing of mammalian cells. Phosphate buffering maintains the pH in the physiological range. Calcium and magnesium facilitate cell binding and clumping. DPBS without these ions can be used to wash and rinse suspended cells.

### Hank's Balanced Salt Solution (HBSS)

Hank's Balanced Salt Solution is a buffer used to maintain a physiological pH for cells maintained in non-CO<sub>2</sub> atmospheric conditions. HBSS can be used for washing cells or as a solution for transporting cells and tissue culture.

To view additional products for your cell culture workflow, visit [vwr.com/cellculture](http://vwr.com/cellculture)



### L-glutamine

L-glutamine is an essential amino acid. It is used as an energy source for cells in cell culture. L-glutamine is stable as a dry powder and as a frozen solution but degrades rapidly in liquid media or stock solutions.

### Trypsin (0.25%) EDTA

Trypsin (0.25%) EDTA (1X) is used to release adherent cells from tissue culture plasticware for harvesting and passaging. Contains Trypsin=0.25%, EDTA=0.04%

Description	Size, mL	Cat. No.	Case of
DMEM with 1.0 g/L Glucose, L-Glutamine, and Sodium Pyruvate	500	VWRL0111-0500	10
DMEM with 1.0 g/L Glucose, without L-Glutamine, and with Sodium Pyruvate	500	VWRL0149-0500	10
DMEM with 4.5 g/L Glucose, L-Glutamine, and Sodium Pyruvate	500	VWRL0101-0500	10
DMEM with 4.5 g/L Glucose, L-Glutamine, and without Sodium Pyruvate	500	VWRL0100-0500	10
DMEM with 4.5 g/L Glucose, without L-Glutamine, and with Sodium Pyruvate	500	VWRL0148-0500	10
DMEM with 4.5 g/L Glucose, without L-Glutamine, and without Sodium Pyruvate	500	VWRL0102-0500	10
DPBS 1X, without Calcium Chloride and Magnesium Chloride	100	VWRL0119-1000	06
DPBS 1X, without Calcium Chloride and Magnesium Chloride	500	VWRL0119-0500	10
HBSS 1X, without Calcium, Magnesium or Phenol Red	500	VWRL0121-0500	10
L-Glutamine 100X, 200mM	100	VWRL0131-0100	48
RPMI 1640, with L-Glutamine	500	VWRL0105-0500	10
RPMI 1640, without L-Glutamine	500	VWRL0106-0500	10
Trypsin-EDTA 0.25% 1X	100	VWRL0154-0100	48

# VWR Life Science Seradigm Fetal Bovine Sera (FBS) and FBS Alternatives

Cell culture experts everywhere are discovering how well their cells thrive on nutritionally superior sera from VWR Life Science Seradigm, making it the fastest growing, global sera brand in the market! VWR Life Science Seradigm's unique collection and manufacturing techniques preserve more of the naturally-occurring growth factors in sera that cells require to thrive. Our proven track record for performance and consistency enables sera users to switch to a brand that yields more of the results they seek – no matter the application, scale, or budget.

Contact us today and we'll help you discover why cells choose VWR Life Science Seradigm.

## Ultimate Grade FBS

The ultimate in product quality and viral safety, this grade undergoes 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 is 100% US origin.

## Premium Grade FBS

Widely used by cell culturists who require a high quality, high performance FBS for a variety of applications. Proprietary manufacturing technology preserves performance-enhancing factors for consistent results. Premium Grade FBS is 100% US origin.

## USDA Approved Origin FBS

This FBS is an affordable, quality product that provides consistent performance for use in cost-sensitive applications. USDA Approved Origin FBS is sourced from Mexico and countries in Central America.

## Ultra Low IgG FBS

Purified of immunoglobulin (IgG) using a chromatographic process that delivers significantly reduced levels of IgG ( $\leq 5\mu\text{g/mL}$ ). 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.

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## FB Essence

This 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.

## Iron Supplemented Bovine Calf Serum (BCS)

Iron Supplemented Bovine Calf Serum is sourced from 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.



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