

# BioWhittaker™ Specialty Media

## Maximize Your Cell Growth and Productivity



BioWhittaker™ Specialty Media for  
Cell Culture Applications

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If your work leads to downstream therapeutic, diagnostic, or biopharmaceutical applications, serum-free media is the best choice for initiating your research studies.

BioWhittaker™ Specialty media deliver outstanding performance, a broad selection, and consistent results, whether you need protein-free, non-animal origin (NAO) or chemically defined media. Our ISO 9000 and cGMP systems are recognized industry wide.

**BioWhittaker™ Serum-free Media deliver unique benefits:**

- Consistent results
- Elimination of FBS lot qualification
- Elimination of FBS-borne mycoplasma and virus contamination
- Simplified downstream purification
- Reduced regulatory burdens
- Maximal yields

### General Purpose Media

#### UltraCULTURE™ Serum-free Medium

- Delivers excellent growth and expansion of a broad range of adherent and suspension cells
- Simplify your media needs, no FBS needed
- The formulation for UltraCULTURE™ Media has been submitted to the FDA as a product Master File

#### PC-1™ Chemically Defined, Serum-free Medium

- Superior media for primary adherent cells

#### HL-1™ Chemically Defined, Serum-free Medium

- Unique media for hybridoma and lymphocytic cells

	General use	Non-animal origin	Protein-free	Chemically defined	Optimized for
UltraCULTURE™ Medium	■	–	–	–	Most cell types
PC-1™ CD Medium	■	–	–	■	Adherent primary cells and cell lines
HL-1™ CD Medium	–	–	–	■	Hybridomas and many adherent cell lines

### Ordering Information

Cat. no.	Product	Size
12-725F	UltraCULTURE™ Medium	500 mL
77232	PC-1™ CD Medium	2 X 500 mL
77201	HL-1™ CD Medium	2 X 500 mL

### Mesenchymal Stem Cell Medium

#### MSCGM-CD™ Chemically Defined, Serum-free MSC Growth Medium

- Optimized for multiple passage expansion of all types of hMSCs
- Cells can be directly transitioned from serum-containing medium with little to no adaptation time
- No need for attachment matrix to plate cells
- Supports multi-lineage differentiation

### Ordering Information

Cat. no.	Product	Size
190632	Therapeak™ MSCGM™ CD Mesenchymal Stem Cell – Chemically Defined Growth Medium BulletKit™	Kit
190620	Therapeak™ MSCBM™ CD Mesenchymal Stem Cell – Chemically Defined Basal Medium	500 mL
192125	Therapeak™ MSCGM™ CD Mesenchymal Stem Cell – Chemically Defined Growth Medium SingleQuots™ Kit	5 mL

## Fibroblast Medium

### FGM™ CD Chemically Defined, Serum-free Fibroblast Growth Medium

- Optimized for adult normal dermal fibroblasts and also supports neonatal cells
- Supports expression of fibroblast markers Ab5B5, CD90, and collagen I
- Collagen production is superior to that obtained with DMEM + FBS
- No weaning – seamless transition from serum-containing media

#### Ordering Information

Cat. no.	Product	Size
199041	FGM™ CD Fibroblast Growth Medium – Chemically Defined, BulletKit™ with L-glutamine, Without Phenol Red or Antibiotics	Kit
199019	FBM™ CD Fibroblast Basal Medium – Chemically Defined	500 mL
199020	FGM™ CD Fibroblast Growth Medium – Chemically Defined, SingleQuots™ Kit	Kit

## Keratinocyte Medium

### TheraPEAK™ KGM™ CD Chemically Defined, Serum-free Keratinocyte growth medium

- Contains only non-animal origin components
- KGM™ CD medium supports both neonatal and adult keratinocytes
- Supports formation of an excellent barrier resulting in high TEER values
- Coating plates with fibronectin or other non-animal derived matrix material is necessary for successful keratinocyte isolations with KGM™ CD medium

#### Ordering Information

Cat. no.	Product	Size
CC-4455	TheraPEAK™ KGM™ CD Chemically Defined Medium	500 mL

## Cryopreservation Medium

### ProFreeze™ Chemically Defined Medium (2X)

- Non-animal, protein-free freezing medium
- Chemically defined
- Formulated for cryopreserving all cell types
- Maintains high cell viability upon recovery from frozen storage
- Requires 15% DMSO at 2X

#### Ordering Information

Cat. no.	Product	Size
12-769E	ProFreeze™ Chemically Defined Medium (2X)	100 mL

## Hematopoietic Media

### X-VIVO™ Chemically Defined, Serum-free Hematopoietic Cell Media

- Superior media for most hematopoietic cell types including dendritic cells, lymphocytes, monocytes, macrophages, and granulocytes
- Some formulations include recombinant transferrin to meet the highest regulatory requirements

- All current X-VIVO™ media products are manufactured under current GMP's and are listed with the FDA in a product Master File.

 Highly cited in scientific literature

	General use	Non-animal origin	Protein-free	Chemically defined	Optimized for
X-VIVO™ 10 Medium	–	–	–	<input type="checkbox"/>	PBL, LAK, monocytes, macrophages, stem cells
X-VIVO™ 15 Medium	<input checked="" type="checkbox"/>	–	–	<input checked="" type="checkbox"/>	PBL, NK, TIL, monocytes, macrophages, stem cells, dendritic cells
X-VIVO™ 20 Medium	–	–	–	<input checked="" type="checkbox"/>	PBL, LAK, TIL, monocytes, macrophages, stem cells, dendritic cells

### Ordering Information

Cat. no.	Product	Size
04-380Q	X-VIVO™ 10 Medium With L-glutamine, Gentamycin and Phenol Red, With Human Transferrin	1 L
04-743Q	X-VIVO™ 10 Medium With L-glutamine, Without Gentamycin or Phenol Red, With Human Transferrin	1 L
BE02-055Q	X-VIVO™ 10 Medium With L-glutamine, Without Gentamycin or Phenol Red, With Recombinant Transferrin	1 L
BE04-418F*	X-VIVO™ 15 Medium With L-glutamine, Gentamycin or Phenol Red, With Human Transferrin	500 mL
04-418Q	X-VIVO™ 15 Medium With L-glutamine, Gentamycin or Phenol Red, With Human Transferrin	1 L
BE02-053Q	X-VIVO™ 15 Medium With L-glutamine, Gentamycin or Phenol Red, With Recombinant Transferrin	1 L
04-744Q	X-VIVO™ 15 Medium With L-glutamine, Without Gentamycin or Phenol Red, With Human Transferrin	1 L
BE02-054Q	X-VIVO™ 15 Medium With L-glutamine, Without Gentamycin or Phenol Red, With Recombinant Transferrin	1 L
04-448Q	X-VIVO™ 20 Chemically Defined, Serum-free Hematopoietic Cell Medium, With L-glutamine, Gentamicin and Phenol Red	1 L

\* Europe only

## PER.C6® Medium

### ProPer™ 1 Chemically Defined, Serum-free Medium

- Optimized for human embryonic retinoblast PER.C6® (and related) cells
- Recombinant protein and virus production

### Permexcis Chemically Defined, Serum-free Medium

- Maintain high viability (>90%) at high cell densities for superior performance
- Save validation time as no weaning required during growth transition
- Reduce regulatory hurdles with a non-animal origin status

	General use	Non-animal origin	Protein-free	Chemically defined	Optimized for
ProPer™ 1 CD medium	–	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	PER.C6® (and related) cells in suspension

Permexcis chemically defined (Please check the Non-animal origin and chemical defined boxes)

### Ordering information

Cat. no.	Product	Size
BE02-028Q	ProPer™ 1 Chemically Defined Medium	1 L
BE02-039Q	Permexcis Virus Production Medium, Without L-glutamine, Phenol Red or Antibiotics	1 L

## CHO Media

### PowerCHO™ Chemically Defined, Serum-free CHO Media

- New chemically defined PowerCHO™ Media bring new levels of cell proliferation and protein production to chemically defined media
- Maintain high viability (>90%) at high cell densities

### UltraCHO™ Serum-free CHO Medium

- The original medium for serum-free CHO use with suspension or adherent cells

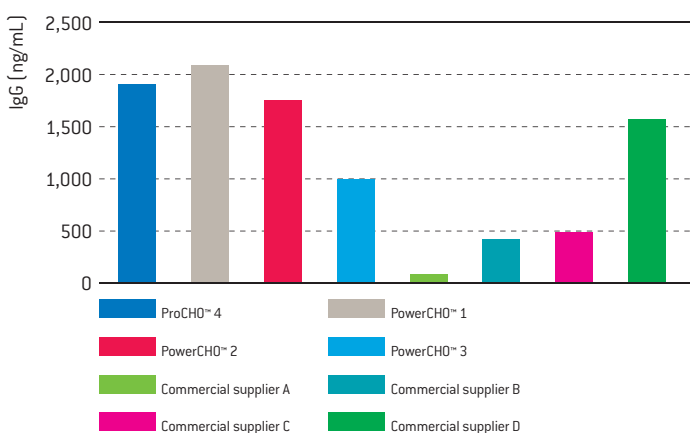
### ProCHO™ Protein-free CHO Media

- Multiple formulas to optimize your protein-free applications including adherent and suspension cells, with high proliferation rates and high protein yield
- Directly convert cultures from adherent with serum to suspension without serum

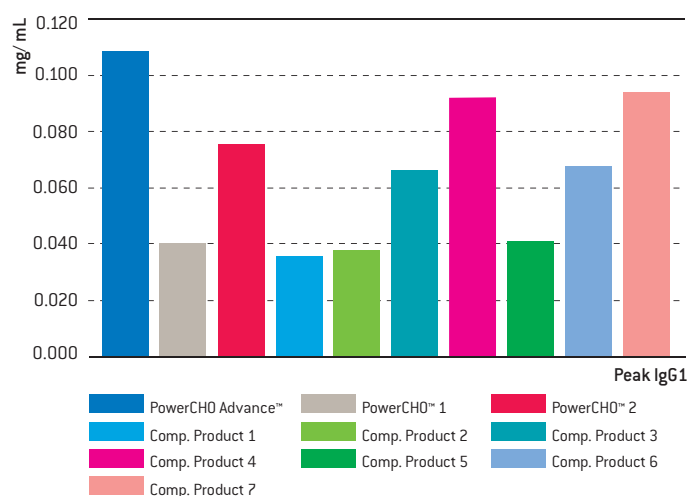
### PowerCHO Advance™ Medium

- Chemically defined, no raw materials of animal origin, serum-free and manufactured to regulatory standards
- Designed for growing and feeding CHO cells in serum-free conditions
- Designed to work together as a complete system which allows for easy scale up
- Allow for easier filtration while maintaining cell growth and viability
- Provides protein titers equivalent or better compared to competitors
- Two versions – one labeled “For Further Manufacturing Use” and another version labeled “For Research Use Only”

### PowerCHO™ and ProCHO™ IgG Production



### PowerCHO Advance™ Productivity Compared to Competitive Media



	General use	Non-animal origin	Protein-free	Chemically defined	Optimized for
PowerCHO™ 1, 2, 3 CD Media	–	■	■	■	Suspension CHO
ProCHO™ 4, 5 Media	–	■	■	–	Suspension CHO
PowerCHO Advance™ Medium	–	■	■	■	Suspension CHO
ProCHO™ AT Medium	–	■	■	–	Adherent CHO
UltraCHO™ Medium	■	–	–	–	Adherent and suspension CHO

### Ordering information

Cat. no.	Product	Size
12-7700	PowerCHO™ 1 CD Medium	1 L
12-7710	PowerCHO™ 2 CD Medium	1 L
12-7720	PowerCHO™ 3 CD Medium	1 L
12-0290	ProCHO™ 4 Medium	1 L
12-7660	ProCHO™ 5 Medium	1 L
12-9290	PowerCHO Advance™ Medium	1 L
BE02-0160	ProCHO™ AT Medium	1 L
12-7240	UltraCHO™ Medium	1 L

## Renal Media

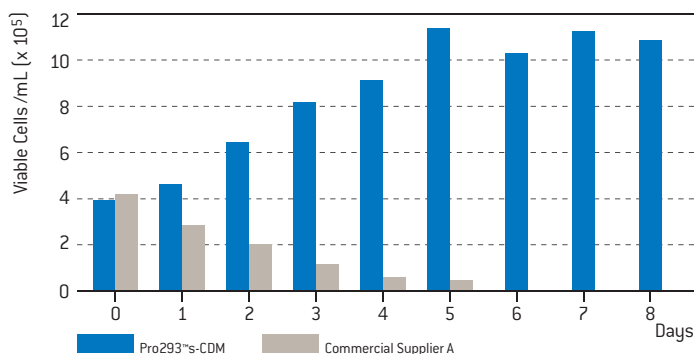
### Pro293™ Chemically Defined Media

- Formulas for both suspension and adherent culture

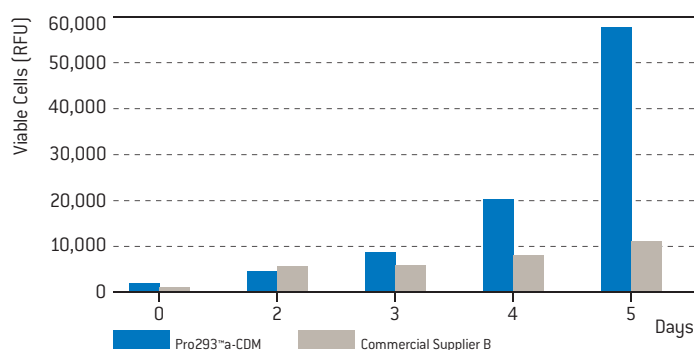
### ProVero™ 1 Medium

- Supports Vero and MDCK in viral vaccine applications

### Pro293™'s Easy Adaptation to Suspension Culture



### Pro293™'a Supports Adherent High-density Cell Growth



### UltraMDCK™ Chemically Defined Medium

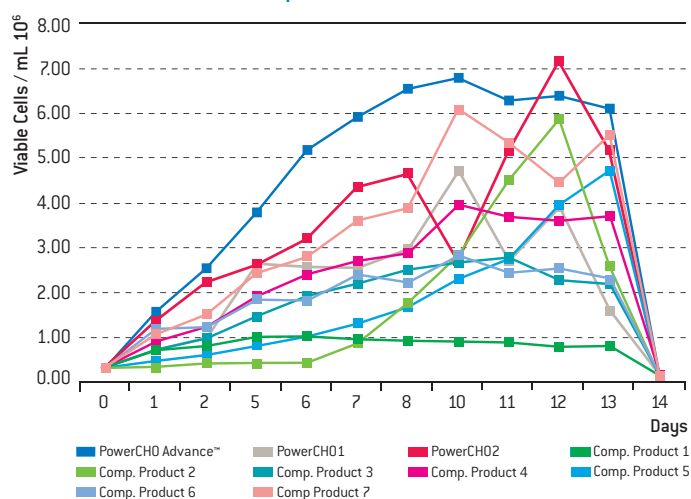
- Supports MDCK in viral vaccine applications at both high and low densities

### ProMDCK™ Chemically Defined Medium

- Serum free media that supports the expansion and virus infection of MDCK cells in planar culture and on microcarriers

**Note:** ProMDCK™ 3D is exclusively available through Sartorius Stedim. (should be visible under ordering information)

### PowerCHO Advance™ vs Competitive Media



	General use	Non-animal origin	Protein-free	Chemically defined	Optimized for
Pro293™'s Chemically Defined Medium	–	■	■	■	HEK 293 suspension
Pro293™'a Chemically Defined Medium	–	■	■	■	HEK 293 adherent
ProVero™ 1 Medium	–	■	■	–	Vero, MDCK
ProMDCK™ Medium	–	■	■	–	MDCK in 2D and 3D
UltraMDCK™ Chemically Defined Medium	■	–	–	■	MDCK, Vero

### Ordering Information

Cat. no.	Product	Size
12-7650	Pro293™'s Chemically Defined Medium	1 L
12-7640	Pro293™'a Chemically Defined Medium	1 L
BE02-0300	ProVero™ 1 Medium	1 L
12-9240	ProMDCK™ 2D Medium "For Manufacturing"	1 L
12-9250	ProMDCK™ 2D Medium "For Furthering Manufacturing"	1 L
12-9260	ProMDCK™ 2D Medium	1 L
12-7490	UltraMDCK™ Chemically Defined Medium	1 L

**Note:** ProMDCK™ 3D is exclusively available through Sartorius Stedim.

## Insect Medium

### Insect-XPRESS™ Protein-free Insect Cell Medium

- Versatile medium for shaker flask or stationary culture of SF9, SF21, High Five™ and Drosophila cells

	General use	Non-animal origin	Protein-free	Chemically defined	Optimized for
Insect-XPRESS™ Medium	–	–	■	–	SF9, SF21, High Five™ and Drosophila cells

### Ordering information

Cat. no.	Product	Size
12-730F	Insect-XPRESS™ Medium	500 mL
12-730Q	Insect-XPRESS™ Medium	1 L

## Hybridoma Media

### UltraDOMA™ Chemically Defined, Serum-free Hybridoma Medium

- Designed for cultivation of murine, human and chimeric hybridomas in batch culture

### UltraDOMA™-PF Chemically Defined, Protein-free Hybridoma Medium

- Based on the original hybridoma media for murine, human, and chimeric origin cells in a completely defined medium with no peptides or tissue extracts

### ProDoma™ Serum-free Hybridoma Medium

- Non-animal, protein-free media for your hybridoma needs
- Scalable from small flasks to large-scale bioreactors

	General use	Non-animal origin	Protein-free	Chemically defined	Optimized for
UltraDOMA™ Chemically Defined Medium	■	–	–	■	Murine, human, and chimeric cell lines
UltraDOMA™-PF Chemically Defined Medium	■	■	■	■	Murine, human, and chimeric cell lines
ProDoma™ 1 Chemically Defined Medium	–	■	■	■	Murine, rat, human, and chimeric cell lines
ProDoma™ 3 Chemically Defined Medium	–	■	■	–	Murine, rat, human, and chimeric cell lines

### Ordering information

Cat. no.	Product	Size
12-723B	UltraDOMA™ Chemically Defined Medium	500 mL
12-727F	UltraDOMA™-PF Chemically Defined Medium	500 mL
BE02-0290	ProDoma™ 1 cChemically Defined Medium	1 L
BE02-0320	ProDoma™ 3 cChemically Defined Medium	1 L

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