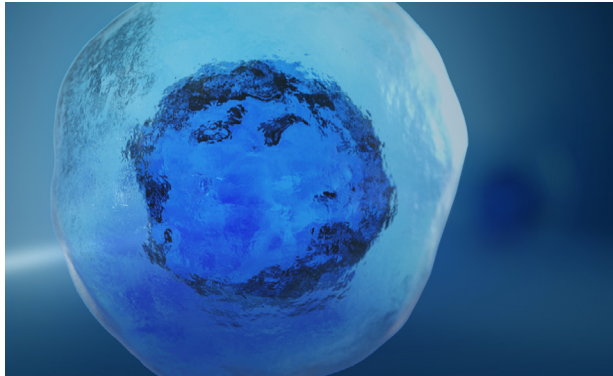


Gibco media, feeds, and supplements guide





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Introduction

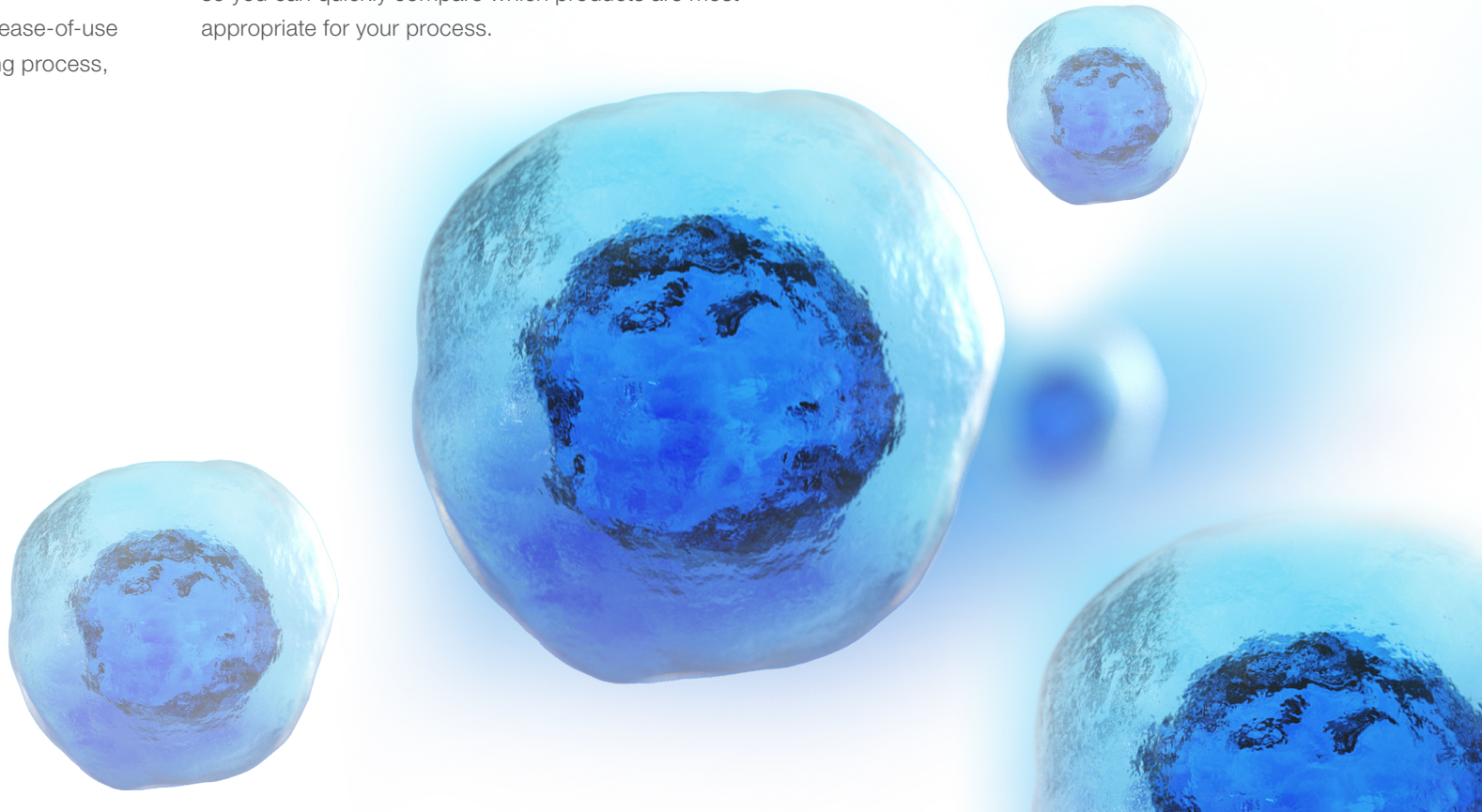
For almost 60 years, the Gibco™ brand has been synonymous with qualified, innovative cell culture solutions—from pioneering the use of serum, through our leadership in gene therapy today, to solving tomorrow’s challenges. Our world-leading products and competence have reliably supported the development and manufacturing of over 230 commercial biologics. High-quality, dependable cell culture products and customization of these products are at the core of the Gibco product offerings—delivering consistent and robust cell growth and production. Our rigorous quality standards will be reflected in your product quality from batch to batch.

Gibco products are developed with your ease-of-use in mind for all phases of the manufacturing process,

from development to high-volume production. These products provide a readily available supply with validated shelf-life and performance for a variety of cell types and culture applications. The cell culture products are stocked in multiple formats including liquids, traditional dry powders, and the Gibco™ Advanced Granulation Technology™ (AGT™) format, and are offered in a variety of packaging films, configurations, and sizes.

This guide is provided as an at-a-glance reference of our portfolio of Gibco media products for bioprocessing needs. The key product information and relevant features are outlined for each product in the following tables, so you can quickly compare which products are most appropriate for your process.

Join forces with the Gibco brand, the trusted pioneer of scalable bioprocessing solutions, and dramatically advance your path forward from process development to commercialization to help patients. Should you require additional details, please [visit our website](#) or [email us](#) for customer support.



Hybridoma media

Designed for use in the production of monoclonal antibodies (mAbs) and other engineered proteins; optimized for human, mouse, and rat hybridomas, myelomas, NS0, NS-1, and other cholesterol-dependent cells when supplemented with Gibco™ Cholesterol Lipid Concentrate (250X) (Cat. No. 12531).

Gibco medium and format	Quantity	Features	Cat. No.
Hybridoma Serum-free Medium (SFM), liquid	500 mL	<ul style="list-style-type: none"> Very low protein content (20 µg/mL) medium, facilitates mAb purification 	12045-084
	1,000 mL	<ul style="list-style-type: none"> Contains insulin, transferrin, surfactant, phenol red, and L-glutamine 	12045-076
Hybridoma SFM, powder	10 L	<ul style="list-style-type: none"> Powder is without bicarbonate; needs to be added 	12300-067
Protein-Free Hybridoma Medium II (PFHM II), liquid	1,000 mL	<ul style="list-style-type: none"> Animal origin-free (AOF), protein-free medium without insulin, transferrin, and surfactant 	12040-077
Protein-Free Hybridoma Medium II (PFHM II), powder	10 L	<ul style="list-style-type: none"> Contains phenol red, L-glutamine, and inorganic iron carrier(s) Powder is without bicarbonate; needs to be added 	23600-042
CD Hybridoma Medium, liquid	1,000 mL		11279-023
CD Hybridoma AGT Medium, granulated powder	1 L	<ul style="list-style-type: none"> AOF, chemically defined, protein-free medium without phenol red or L-glutamine 	12372-025
	10 L	<ul style="list-style-type: none"> Liquid and powder contain sodium bicarbonate and inorganic iron carriers 	12372-017
	100 L	<ul style="list-style-type: none"> Incompatible with ammonium sulfate, hence do not use ammonium sulfate precipitation as a means of purification 	12372-001
	10 kg		12372-003
Cell MAb Medium, animal component free, liquid	1 L	<ul style="list-style-type: none"> AOF, protein-free medium without surfactants, phenol red and attachment factors (may be added for adherent cells) Contains L-glutamine and 0.3% Gibco™ Difco™ Soytone, an enzymatic digest of soy (peptones are not considered full proteins) 	220513
Cell MAb Medium, quantum yield, liquid	1 L	<ul style="list-style-type: none"> AOF, chemically defined protein-free medium without surfactants Contains phenol red and L-glutamine Must be supplemented in the same way as traditional basal media (e.g., serum or serum-free supplements) 	220511

Chinese hamster ovary (CHO) media

For production of recombinant proteins and monoclonal antibodies (mAbs) in CHO suspension cell culture; all are AOF, chemically defined and protein-free without phenol red, glutamine, hydrolysates, hypoxanthine*, or thymidine*, unless noted otherwise.

Gibco product and format	Quantity	Gibco optimized cell lines	Gibco recommended feeds and supplements	Features	Cat. No.
CD DG44 Medium, liquid	1,000 mL	DG44, DXB11, and other DHFR ⁻ cell lines	Once transfected, scale-up is recommended in CD OptiCHO [™] Medium and EfficientFeed [™] A+ Supplement	<ul style="list-style-type: none"> Optimized for the growth of dihydrofolate reductase-deficient (DHFR⁻) cells in suspension, contains hypoxanthine and thymidine (HT), without surfactant Also available in Gibco[™] Freedom[™] DG44 Kit with cGMP-banked cells (Cat. No. A13737-01) 	12610-010
Freedom [™] CHO-S Kit	–	Kit contains CHO-S [™] cells (cGMP-banked) and media	EfficientFeed [™] C+ Supplement	<ul style="list-style-type: none"> Easy-to-use, beginning-to-end product, for cloning and expression of recombinant proteins in CHO-derived suspension culture The Freedom CHO-S Kit includes components for transfection, expression, clone creation, and stable cell line selection, all in a conveniently packaged kit 	A1369601
Freedom [™] DG44 Kit	–	Kit contains DG44 cells (cGMP-banked) and media	NA	<ul style="list-style-type: none"> Easy-to-use, beginning-to-end product, for cloning and expression of recombinant proteins in DHFR⁻ CHO cells The Freedom DG44 Kit includes components for transfection, expression, clone creation, and stable cell line selection, all in a conveniently packaged kit 	A1373701
CD CHO Medium, liquid	500 mL	CHO-S and glutamine synthetase (GS) CHO	EfficientFeed [™] B+ Supplement, GlycanTune [™] B+ Total Feed, GlycanTune [™] Feed Kit B+	<ul style="list-style-type: none"> Best with past culture success in CD CHO cells, and process is nearing regulatory filing 	10743-011
	1,000 mL				10743-029
	10 L BPC				10743-001
	20 L BPC				10743-002
CD CHO AGT Medium, granulated powder	1 L	NA		<ul style="list-style-type: none"> Also available: CHO-S cells (cGMP-banked) and Media Kit (Cat. No. A11557-01) 	12490-017
	10 L				12490-025
	100 L				12490-001
	10 kg				12490-003
CD OptiCHO [™] Medium, liquid	1,000 mL	DG44, DXB11, and CHO cells except CHO K1, GS CHO, and CHO-S	EfficientFeed [™] A+ Supplement, GlycanTune [™] A+ Total Feed, GlycanTune [™] Feed Kit A+	<ul style="list-style-type: none"> Lower osmolality formulation when feeding optimization is important and best for hard-to-grow or hard-to-adapt cells 	12681-011
	6 x 1,000 mL				12681-029
CD OptiCHO AGT Medium, granulated powder	1 L				A11222-04
	10 L				A11222-05
	100 L				A11222-01
	10 kg				A11222-03
Dynamis [™] Medium, liquid	1,000 mL	DG44, CHO K1, GS CHO, and CHO-S	EfficientFeed [™] C+ Supplement, GlycanTune [™] C+ Total Feed, GlycanTune [™] Feed Kit C+	<ul style="list-style-type: none"> Best for achieving maximal productivity with high cell densities and cell viability at harvest 	A26615-01
Dynamis AGT Medium, granulated powder	1 L				A26175-04
	10 L				A26175-01
	100 L				A26175-02
	10 kg				A26175-03

Chinese hamster ovary (CHO) media, continued

Gibco product and format	Quantity	Gibco optimized cell lines	Gibco recommended feeds and supplements	Features	Cat. No.
ExpiCHO™ Stable Production Medium (SPM), liquid	1,000 mL	ExpiCHO-S™ cells (cGMP-banked, Cat. No. A37785)	EfficientFeed C+ Supplement, GlycanTune C+ Total Feed, GlycanTune Feed Kit C+	<ul style="list-style-type: none"> Enables seamless transition from transient to stable production without additional medium optimization Use ExpiCHO™ Expression Medium (Cat. No. A29100) for transfection 	A37110-01
ExpiCHO Stable Production AGT Medium, granulated powder	10 L				A37111-01
	100 L				A37111-02
	450 L				A37111-03
High-Intensity Perfusion CHO Medium (HIP CHO), AGT granulated powder	1 x 2 L	DG44, CHO K1, GS CHO, and CHO-S cell lines designed for high-density perfusion workflows	At full medium concentration, designed to be used without additional feed	<ul style="list-style-type: none"> Designed to work with all types of suspension perfusion applications including intensified seed trains, concentrated or intensified fed-batch and continuous perfusion processes Ease of use with AGT format—flexible reconstituted concentrations for both seed train and production work with cell lines that may be sensitive to more concentrated media Supports high cell densities while reducing medium exchange rates—results from continuous perfusion of >100 million cells/mL at 1 VVD 	A42302-01
	15 x 2 L				A42302-02
	100 x 2 L				A42302-03
	370 x 2 L				A42302-03
CHO Cell Culture Medium, liquid and dry powder	1,000 mL	DG44, CHO-K1, other CHO cell lines, and BHK-21 cells	NA	<ul style="list-style-type: none"> A high-performance, complete formulation yielding cell growth and production of antibodies and recombinant proteins in suspension without the need for further supplementation Contains Gibco™ Difco™ TC Yeastolate (ultra-filtered) plant hydrolysate, not fully chemically defined 	220253
	10 kg				670006
CD-1000 Medium, liquid and dry powder	1,000 mL	CHO, NS0, and hybridoma cells	Various hydrolysates or CD supplements	<ul style="list-style-type: none"> Designed as a platform medium suitable for multiple cell types Ideally suited for further hydrolysate or chemically defined supplementation in batch, fed-batch, and perfusion processes for both research and manufacturing applications 	215204
	20 L BPC				215205
	500 g				215206
	10 kg				215207
Easy-Adapt™ CHO-K1 CD Medium, liquid	1,000 mL	CHO-K1 and CHO	NA	<ul style="list-style-type: none"> Specifically designed to provide the nutrients CHO-K1 cells need; rich in carbohydrates, amino acids, and vitamins 	670112
	20 L BPC				670114
CHO Media Panel	9 x 500 mL	Diverse media panel designed to identify optimal formulation for various CHO cell lines	CHO catalog feeds or CHO feed panel	<ul style="list-style-type: none"> Diverse library of formulations Evaluation protocol Technical evaluation support Easy to customize Scalable to rapid prototyping and GMP 	Order through Gibco Custom Media Services gibcopanelteam@thermofisher.com

* Hypoxanthine and thymidine are used in dihydrofolate reductase (DHFR)–amplified systems. If needed, add Gibco™ HT Supplement (Cat. No. 11067).

Note: This table provides guidance and recommendations for initial studies, but individual cell lines and clones may respond differently with these recommendations. Additional cell-specific formulations, supplements, or process modifications may be necessary. Contact Gibco PD-Express Services, go to [thermofisher.com/pdexpress](https://www.thermofisher.com/pdexpress), or contact your local field application scientist (FAS) through your account manager.

Chemically defined feed supplements

For nutrient replacement or glycan modulation in cell culture production of recombinant proteins, monoclonal antibodies, and vaccines; all are chemically defined, AOF, protein-free, and without phenol red, glutamine, hydrolysates, lipids, or growth factors, unless noted otherwise.

Gibco product and format	Quantity	Features	Recommended Gibco basal medium	Cat. No.	
EfficientFeed™ A+ Supplement Concentrated 3X, liquid	1,000 mL	<ul style="list-style-type: none"> Liquid is pH neutral at 3X concentrate AGT format can be used from 1x to 3x by altering the ratio of powder to water Total feed volumes generally range from 10–45% (1x) to 3–15% (3x) of the starting culture volume as further outlined in the user guide 	CD OptiCHO Medium	A39374-01	
	10 L BPC			A39374-02	
EfficientFeed A+ AGT Supplement, granulated powder	1 L			A25023-04	
	10 L			A25023-05	
	100 L			A25023-01	
GlycanTune™ A+ Total Feed, AGT granulated powder	1 L			<ul style="list-style-type: none"> Modulates glycan expression from G0F to desired G1F and G2F profile based on shifting the timing of existing feed replacement with the GlycanTune feed 	A29719-04
	10 L				A29719-05
	100 L				A29719-01
GlycanTune Feed Kit A+, AGT granulated powder	2 L (1 L each)			<ul style="list-style-type: none"> Contains 1 L each of EfficientFeed A+ AGT Supplement and GlycanTune A+ Total Feed 	A33159-01
EfficientFeed™ B+ Supplement Concentrated 3X, liquid	1,000 mL			<ul style="list-style-type: none"> Liquid is a pH-neutral 3X concentrate AGT medium can be used from 1x to 3x by adding different amounts of powder to water Total feed volumes typically range from 10–45% (1x) to 3–15% (3x) of the starting culture volume, as further outlined in the user guide 	CD CHO Medium
	10 L BPC	A39375-02			
EfficientFeed B+ AGT Supplement, granulated powder	1 L	A25030-04			
	10 L	A25030-05			
	100 L	A25030-01			
GlycanTune™ B+ Total Feed, AGT granulated powder	1 L	<ul style="list-style-type: none"> Modulates glycan expression from G0F to desired G1F and G2F profiles based on shifting the timing of existing feed replacement with the GlycanTune feed 	A29720-04		
	10 L		A29720-05		
	100 L		A29720-01		
GlycanTune Feed Kit B+, AGT granulated powder	2 L (1 L each)	<ul style="list-style-type: none"> Contains 1 L each of EfficientFeed B+ AGT Supplement and GlycanTune B+ Total Feed 	A33160-01		

Chemically defined feed supplements, continued

Gibco product and format	Quantity	Features	Recommended Gibco basal medium	Cat. No.		
EfficientFeed™ C+ Supplement Concentrated 2X, liquid	1,000 mL	<ul style="list-style-type: none"> Liquid is pH neutral at 2X concentrate AGT can be used from 1x to 2x by adding different amounts of powder to water Total feed volumes typically range from 10–40% (1x) to 5–20% (2x) of the starting culture volume, as further outlined in the user guide 	Dynamis Medium or ExpiCHO Stable Production Medium for ExpiCHO-S cells	A39376-01		
	10 L BPC			A39376-02		
EfficientFeed C+ AGT Supplement, granulated powder	1 L			A25031-04		
	10 L			A25031-05		
	100 L			A25031-01		
GlycanTune™ C+ Total Feed, AGT granulated powder	1 L			<ul style="list-style-type: none"> Modulates glycan expression from G0F to desired G1F and G2F profile based on shifting the timing of existing feed replacement with the GlycanTune feed 	Dynamis Medium or ExpiCHO Stable Production Medium for ExpiCHO-S cells	A29721-04
	10L					A29721-05
	100 L					A29721-01
GlycanTune Feed Kit C+, AGT granulated powder	2 L (1 L each)			<ul style="list-style-type: none"> Contains 1 L each of EfficientFeed C+ AGT Supplement and GlycanTune C+ Total Feed 	Dynamis Medium or ExpiCHO Stable Production Medium for ExpiCHO-S cells	A33161-01
Feed Kit A+, B+, C+, AGT granulated powder	3 L (1 L each)			<ul style="list-style-type: none"> Contains 1 L each of EfficientFeed A+ AGT Supplement, EfficientFeed B+ AGT Supplement, and EfficientFeed C+ Supplement Concurrent evaluation of all 3 feeds is recommended as outlined in the user guide 		Various Gibco basal media for CHO or vaccine cell lines
		FunctionMAX™ TiterEnhancer Supplement, concentrated liquid	100 mL			
500 mL	A15010-02					
FunctionMAX TiterEnhancer AGT Supplement, granulated powder	10 L	<ul style="list-style-type: none"> Can be added as a partial replacement of a feed supplement or to an existing fed-batch process when a drop-off in specific productivity occurs late in high-density cultures 	CD OptiCHO Medium or CD CHO Medium	A15009-01		
	100 L			A15009-02		

Chemically defined feed supplements, continued

Gibco product and format	Quantity	Features	Recommended Gibco basal medium	Cat. No.		
Resurge™ CD1 Supplement, dry powder (Also see Resurge CD Pak)	100 g	<ul style="list-style-type: none"> A 5-member family of diverse nutritional feed supplements, without glucose and glutamine, developed using several CHO cell lines and various batch or fed-batch culture systems Improves product yield without sacrificing product quality and allows greater flexibility in the glucose feeding strategy All 5 supplements should be concurrently evaluated to determine the supplement(s) most beneficial for your cell line and system 	Various basal media for CHO cell lines	670011		
	1 kg			670012		
	5 kg			670013		
Resurge CD2 Supplement, dry powder (Also see Resurge CD Pak)	100 g			670015		
	1 kg			670016		
	5 kg			670017		
Resurge CD3 Supplement, dry powder (Also see Resurge CD Pak)	100 g			670018		
	1 kg			670019		
	5 kg			670020		
Resurge CD4 Supplement, dry powder (Also see Resurge CD Pak)	100 g			670021		
	1 kg			670022		
	5 kg			670023		
Resurge CD5 Supplement, dry powder (Also see Resurge CD Pak)	100 g			670024		
	1 kg			670025		
	5 kg			670026		
Resurge CD Pak 5 dry powder supplements	100 g of each			670030		
1. Resurge CD1 Supplement (Cat. No. 670011)						
2. Resurge CD2 Supplement (Cat. No. 670015)						
3. Resurge CD3 Supplement (Cat. No. 670018)						
4. Resurge CD4 Supplement (Cat. No. 670021)						
5. Resurge CD5 Supplement (Cat. No. 670024)						
CHO Feed Panel	5 x 100 mL			<ul style="list-style-type: none"> Diverse library of feeds designed to identify optimal formulation Evaluation protocol Technical evaluation support Easy to customize Scalable to rapid prototyping and GMP 	CHO catalog media or CHO media panel formulation	Order through Gibco Custom Media Services (gibcpanelteam@thermofisher.com)

Note: This table provides guidance and recommendations for initial studies, but individual cell lines and clones may respond differently with these recommendations. Additional cell-specific formulations, supplements, or process modifications may be necessary. Contact Gibco PD-Express Services, go to [thermofisher.com/pdexpress](https://www.thermofisher.com/pdexpress), or contact your local FAS through your account manager.

Peptone supplements

For nutrient supplementation in mammalian, insect, and microbial cell culture production of recombinant proteins, monoclonal antibodies, and vaccine products.

Gibco product and format	Quantity	Features	Cat. No.
<p>Starter Pak No. 1 5 dehydrated powders*:</p> <ol style="list-style-type: none"> 1. Difco™ Yeast Extract, ultra-filtered (UF) (Cat. No. 210929) 2. Bacto™ Yeast Extract, technical (Cat. No. 288620) 3. Bacto TC Yeastolate (Cat. No. 255772) 4. Difco TC Yeastolate, UF (Cat. No. 292804) 5. Difco Phytone Supplement, UF (Cat. No. 210931) <p>* These are non-GMP samples of the same formulation as the catalog products listed; see footnote below.</p>	100 g of each	<ul style="list-style-type: none"> • Starter sample package of five AOF Difco and Bacto peptones for use with mammalian and microbial cell cultures to enhance growth and production in batch or fed-batch processes • Evaluation of all five peptones in concurrent testing is recommended to determine which nutritional profiles are most beneficial to your culture 	215366
<p>Starter Pak No. 2 6 dehydrated powders*:</p> <ol style="list-style-type: none"> 1. Phytone™ Peptone (Cat. No. 211906) 2. Difco Soytone (Cat. No. 212488) 3. Bacto Yeast Extract (Cat. No. 212750) 4. Bacto Proteose Peptone No. 2 (Cat. No. 212120) 5. Bacto Proteose Peptone No. 3 (Cat. No. 211693) 6. Bacto Casamino Acids (Cat. No. 223050) <p>* These are non-GMP samples of same formulation as the catalog products listed; see footnote below.</p>	100 g of each	<ul style="list-style-type: none"> • Starter sample package of three AOF and three animal-origin (AO) Difco and Bacto peptones for use with mammalian and microbial cell cultures to enhance growth and production in batch or fed-batch processes • Evaluation of all six peptones in concurrent testing is recommended to determine which nutritional profiles are most beneficial to your culture 	215367
<p>Starter Pak No. 3 6 dehydrated powders*:</p> <ol style="list-style-type: none"> 1. Bacto TC Yeastolate (Cat. No. 255772) 2. Phytone Peptone (Cat. No. 211906) 3. Difco Soytone (Cat. No. 212488) 4. Bacto Yeast Extract (Cat. No. 212750) 5. Bacto Malt Extract (Cat. No. 218630) 6. Yeast Extract (Cat. No. 211929) <p>* These are non-GMP samples of same formulation as the catalog products listed; see footnote below.</p>	100 g of each	<ul style="list-style-type: none"> • Starter sample package of six AOF Difco and Bacto peptones for use with mammalian and microbial cell cultures to enhance growth and production in batch or fed-batch processes • Evaluation of all six peptones in concurrent testing is recommended to determine which nutritional profiles are most beneficial to your culture 	215368
<p>Peptone Preview Pak 5 dehydrated powders*:</p> <ol style="list-style-type: none"> 1. Wheat 100, UF (Cat. No. 215380) 2. Cotton Peptone 100, UF (Cat. No. 215381) 3. Cotton Peptone 200, UF (Cat. No. 215382) 4. Soy 100 (Cat. No. 215383) 5. Yeast 100 (Cat. No. 215384) <p>* These are non-GMP samples of same formulation as the catalog products listed; see footnote below.</p>	100 g of each	<ul style="list-style-type: none"> • Features new wheat, cotton, soy, and yeast peptones which provide unique nutritional profiles compared to other cell culture supplements • Suitable for use with mammalian and microbial cell cultures to enhance growth and production in batch or fed-batch processes • Evaluation of all five peptones in concurrent testing is recommended to determine which nutritional profiles are most beneficial to your culture 	215379

Note: This chart provides information pertaining to Peptone Starter and Preview Paks for evaluation purposes. A complete listing of all catalog peptones supplements can be found in our [Technical Guide to Peptones, Supplements, and Feeds](https://www.thermofisher.com/peptones) at [thermofisher.com/peptones](https://www.thermofisher.com/peptones)

Vaccine media

For production of vaccines and recombinant proteins from cell culture.

Gibco product and format	Quantity	Optimized Gibco cell lines	Features	Cat. No.	
Vaccine Production (VP)-SFM, liquid	1,000 mL	Vero, HEp-2, and COS-7L	<ul style="list-style-type: none"> Designed for the growth of cells for virus production or for recombinant protein production Performs comparably to serum-supplemented media in adherent and micro-carrier cultures Yields best viral production without the use of trypsin 	11681-020	
VP-SFM AGT Medium, granulated powder	1 L			12559-001	
	10 L			12559-019	
	100 L			12559-027	
	10 kg			12559-003	
OptiPRO™ SFM, liquid	100 mL	Most kidney cell lines, including MDCK, BHK-21, Vero, MDBK, and PK-15	<ul style="list-style-type: none"> Designed for growth of kidney-derived cells for virus or recombinant protein production; no adaptation is necessary for many cell lines Low protein (<10 µg/mL) formulation (not considered chemically defined) Delivers robust titers with streamlined transition to serum-free production in both adherent and microcarrier systems 	12309-050	
	1,000 mL			12309-019	
OptiPRO AGT Medium, granulated powder	–			AGT as custom order only	
Advanced DMEM (Dulbecco's Modified Eagle Medium), liquid	500 mL	Vero, A549, MDBK, COS-7, and MRC-5	<ul style="list-style-type: none"> Four reduced serum classical medium formulations for adherent cultures with added components including sodium pyruvate, non-essential amino acids (NEAA), ethanolamine, glutathione, ascorbic acid, insulin, transferrin, AlbuMAX™ I Lipid-Rich Bovine Serum Albumin for cell culture, and trace elements (complete formulations available online) Not considered AOF or protein-free Serum reduced by 50–90% (typically between 0.5% and 2% FBS), with no adaptation, change in growth rate, or cell morphology 	12491-015	
				10 x 500 mL	12491-023
Advanced MEM (Minimum Essential Medium), liquid	500 mL	Vero, PK-15, WI-38, MDCK, and HEp-2		12492-013	
				10 x 500 mL	12492-021
Advanced RPMI 1640 (Roswell Park Memorial Institute 1640), liquid	500 mL	Vero, Jurkat, SP2, RAJI, and DAUDI		12633-012	
				10 x 500 mL	12633-020
Advanced DMEM/F-12 (Dulbecco's Modified Eagle Medium / Ham's F-12), liquid	500 mL	Vero, Jurkat, SP2, WI-38, and MRC-5		12634-010	
				10 x 500 mL	12634-028
CD BHK-21™ Production Medium, liquid	–	BHK-21		<ul style="list-style-type: none"> First and only chemically defined veterinary vaccine production medium commercially available Direct adaptation from serum containing classical media in less than 2 weeks; usually 5 passages in 10 days 	Liquid as custom order only
CD BHK-21 Production Medium, dry powder	10 L				A16277-01
	100 L		A16277-02		
	10 kg	A16277-03			

Vaccine media, continued

Gibco product and format	Quantity	Optimized Gibco cell lines	Features	Cat. No.
CD 293 Medium (1X), liquid	1,000 mL	293-F cells in CD 293 (Cat. No. 11625-019), 293-H cells in CD 293 (Cat. No. 11631-017), and other 293-F and 293-H cells	<ul style="list-style-type: none"> Optimized for the growth of high-density suspension cultures of HEK293 cells (293-H) for transient transfection viruses and recombinant proteins Contains a proprietary dispersant to minimize cell clumping 	11913-019
CD 293 AGT (1X) Medium, granulated powder	1 L			12529-02
	10 L			12529-012
	100 L			12529-001
	10 kg			12529-003
Diploid Growth Serum-Reduced Medium (SRM) Kit, dry powder medium and 100X frozen liquid supplement	10 L	MRC-5, WI-38, KMB-17, 2BS human diploid, and chicken embryo fibroblast (CEF) cells	<ul style="list-style-type: none"> The Diploid SRM system is comprised of two kits designed to be used in conjunction: the Growth SRM Kit for cell expansion and the Production SFM Kit (Cat. No. A39690) for viral production The Diploid Growth SRM Kit for cellular expansion contains basal medium (with L-glutamine) and 100X supplement, requires only 1–2% FBS and no serum for CEF cells Serum-banked cells may be thawed directly into medium without adaptation, reducing risk of reaching Hayflick limit 	A39689-01
	100 L			A39689-02
Diploid Production SFM Kit, dry powder medium and 100X frozen liquid supplement	10 L	MRC-5, WI-38, KMB-17, 2BS human diploid, and CEF cells	<ul style="list-style-type: none"> After growth in Diploid Growth SRM above (Cat. No. A39689), cells are transferred to Diploid Production SFM for viral production with no wash needed at transfer and no serum, albumin, or other supplements as required Diploid Production Serum Free kit for viral production contains basal medium (with L-glutamine) and 100X supplement 	A39690-01
	100 L			A39690-02
ExpiSf™ CD Medium, liquid	500 mL	ExpiSf9 cells (Cat. No. A35243) and other suspension-adapted Sf9 insect cells	<ul style="list-style-type: none"> A chemically defined, serum-free, protein-free, AOF medium specifically designed for high-density growth and transfection of Sf9 insect cells A core component of the ExpiSf Expression System Starter Kits (Cat. Nos. A38841, A39111 A39112, TRN00503) specifically designed for high-density growth, transfection, and baculoviral infection* Used in combination with a matched protein expression enhancer; ExpiSf Enhancer offered in the ExpiSf Protein Production Kits (Cat. Nos. A37678-06, A37678-07, A37678-08) 	A37678-01
	1,000 mL			A37678-02
	6 x 1,000 mL			A37678-03
	10 L BPC			A37678-04
	20 L BPC			A37678-05

Vaccine media, continued

Gibco product and format	Quantity	Optimized Gibco cell lines	Features	Cat. No.
Sf-900™ II SFM, liquid	500 mL	Sf9 cells in Sf-900 II SFM (Cat. No. 11496-015),	<ul style="list-style-type: none"> Optimized medium for large-scale production of recombinant proteins expressed using the baculoviral expression vector system (BEVS)* in suspension and monolayer insect cell culture Not considered AOF or chemically defined and contains L-glutamine 	10902-096
	1,000 mL	Sf21 cells in Sf-900 II SFM (Cat. No. 11497-013),		10902-088
	6 x 1,000 mL	Sf9, Sf21, and other Lepidopteran insect cells		10902-104
Sf-900 II SFM, no methionine, no cystine, liquid	500 mL	Sf9, Sf21, Tn-368, <i>Lymantria dispar</i> , and other Lepidopteran insect cells	<ul style="list-style-type: none"> Optimized medium for large-scale production of recombinant virus and rDNA proteins expressed using the BEVS* in suspension and monolayer insect cell culture Without methionine or cysteine/cystine; for labeling applications, not considered AOF or chemically defined and contains L-glutamine Increases in cell densities of 20–100% observed with the <i>Lymantria dispar</i> and <i>Trichoplusia ni</i> (Tn-368), supporting >20 passages 	21012-02
Sf-900 III SFM, liquid	500 mL	Sf9 cells in Sf-900 III SFM (Cat. No. 12659-017), Sf21 cells in Sf-900 III SFM (Cat. No. 12682-019), and other available suspension-adapted insect cell lines	<ul style="list-style-type: none"> Complete AOF medium for recombinant proteins produced in suspension cultures using the BEVS* Contains L-glutamine, surfactant, and reduced level of hydrolysate compared to Sf-900 II SFM Supports high cell densities of 10–14 x 10⁶ cells/mL with strong protein production 	12658-019
	1,000 mL			12658-027
	10 L			12658-035
	20 L			12658-001

* See Bac-to-Bac Baculovirus Expression System Kits (Cat. Nos. 10359-016, 10360-014, 10584-027, 10712-024) and Publication Number MAN0000414 for further information.

Cell and gene therapy media

For production of therapeutic cells and genes from cell culture.

Gibco product and format	Quantity	Optimized Gibco cell lines	Features	Cat. No.
FreeStyle™ F17 Expression Medium, liquid	1,000 mL	FreeStyle 293-F (Cat. No. R790-07), 293-F cells, SFM-adapted (Cat. No. 11625), and CHO cell lines	<ul style="list-style-type: none"> Specifically developed to support the growth and transfection of 293-F and CHO cells in suspension without adaptation from other serum-free media Scalable in spinner flasks and bioreactors depending on impeller design and speed; may need additional surfactant 	A13835-01
	6 × 1,000 mL			A13835-02
	10 L BPC			A13835-03
	20 L BPC			A13835-04
Sf-900 II SFM, no methionine, no cystine, liquid	–			AGT format as custom order only
Viral Vector HEK Media Panel	–	Broad compatibility with HEK293 cell lines (except Expi293, VPC 1.0, and VPC 2.0)	<ul style="list-style-type: none"> 5 distinct RUO formulations, scalable to GMP manufacturing as liquid and AGT formats Technical evaluation support from FAS Easy-to-customize formulations Compatible with polymer-based transfection 	Order through Gibco Custom Media Services (gibcpanelteam@thermofisher.com)
CTS™ OpTmizer™ T-Cell Expansion SFM, no phenol red, liquid medium and supplement	1,000 mL	Human T lymphocytes and other peripheral blood mononuclear cells (PBMCs)	<ul style="list-style-type: none"> Same as CTS OpTmizer T-Cell Expansion SFM Kit (Cat. No. A10485) but basal medium is without phenol red pH indicator Sold only as a complete kit; each container is a sterile, filtered single-use unit Positioned for autologous cell therapy 	A37050-01
	1 L BPC			A37050-03
CTS OpTmizer T-Cell Expansion SFM, liquid medium and supplement	1,000 mL	Human T lymphocytes and other PBMCs	<ul style="list-style-type: none"> Basal medium and supplement kit developed for the cellular expansion of T cells; sold only as a complete kit, each container is a sterile, filtered single-use unit Not considered chemically defined, protein-free, or AOF, but is xeno-free and human origin materials are non-reactive (donor level) for anti-HIV-1 and -2, anti-HCV, and HBsAg The use of 2.5% CTS Immune Cell Serum Replacement (ICSR) (Cat. No. A25961) may enhance cell viability and expansion Positioned for autologous cell therapy 	A10485-01
	1 L BPC			A10485-03

Cell and gene therapy media, continued

Gibco product and format	Quantity	Optimized Gibco cell lines	Features	Cat. No.	
CTS OpTmizer Pro SFM, no phenol red, liquid medium and supplement	1,000 mL	Human T lymphocytes	<ul style="list-style-type: none"> Basal medium and supplement kit developed for the cellular expansion of T cells specifically in longer workflows of allogeneic cell therapy; sold only as a complete kit, and each container is a sterile, filtered single-use unit Not considered chemically defined protein-free or AOF, but is xeno-free and human origin materials are non-reactive (donor level) for anti-HIV-1 and -2, anti-HCV, and HBsAg This medium improves central memory phenotype and cell growth by shifting the cell's metabolism New Thermo Scientific™ Aegis™ film and bag design allow compatibility with closed systems Positioned for allogeneic cell therapy 	A49661-01	
	1 L BPC			A49661-03	
CTS™ AIM-V™ Medium, liquid	1 L	Human T lymphocytes and dendritic cells		<ul style="list-style-type: none"> First commercially available, chemically defined, serum-free medium in compliance with cGMP for expansion and/or manipulation of T cells and dendritic cells 	A38308-01
	10 L			<ul style="list-style-type: none"> Contains L-glutamine, without phenol red and without antibiotics Can be supplemented with human AB serum or CTS ICSR (Cat. No. A25961) and various cytokines or growth factors 	A38308-02

Note: The CTS products are designed for the manufacturing of cell, gene and tissue-based products and to reduce the customer's clinical reagent qualification burden by providing harmonized documentation such as COA, C00, and access to authorization letters for Drug Master Files, as appropriate.

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