RF BIOLOGICS
RELENTLESSLY INNOVATIVE

CELLS & MEDIA
CATALOG

WELCOME TO ORF BIOLOGICS

At ORF Biologics, we believe that breakthrough science begins with reliable, high-performance biological systems. As cell-based research continues to drive discoveries across therapeutics, diagnostics, gene and cell therapy, and biomanufacturing, researchers require consistent, well-characterized cell lines and media formulations that support reproducibility at every stage. Our mission is to provide dependable cellular tools, engineered, optimized, and quality-controlled to meet the demands of modern workflows.

Our expanding portfolio includes mammalian cell lines, stem cell systems, and a comprehensive suite of media platforms. Whether you are engineering proteins in CHO or HEK cells, producing viral vectors, expanding mesenchymal stem cells, or working with advanced human disease models, ORF Biologics delivers high-performance solutions designed for stability, compatibility, and seamless integration.

OUR EXPERTISE

With deep expertise in cell engineering, stem cell biology, bioprocess development, and culture optimization, our team has assembled a specialized portfolio of mammalian cell lines and media systems designed to meet diverse research and manufacturing needs. Our offerings include adherent and suspension CHO and HEK systems for recombinant protein expression, viral vector production, and high-content screening. We also provide primary and expanded mesenchymal stem cells isolated from well-characterized sources.

Our media platforms, ranging from classical serum-supplemented formulations to chemically defined, serum-free systems, are engineered for consistent performance, enhanced growth, and reduced process variability. Customization options allow researchers to tailor feeds, supplements, and formulations to their specific cell systems.

APPLICATIONS ACROSS RESEARCH

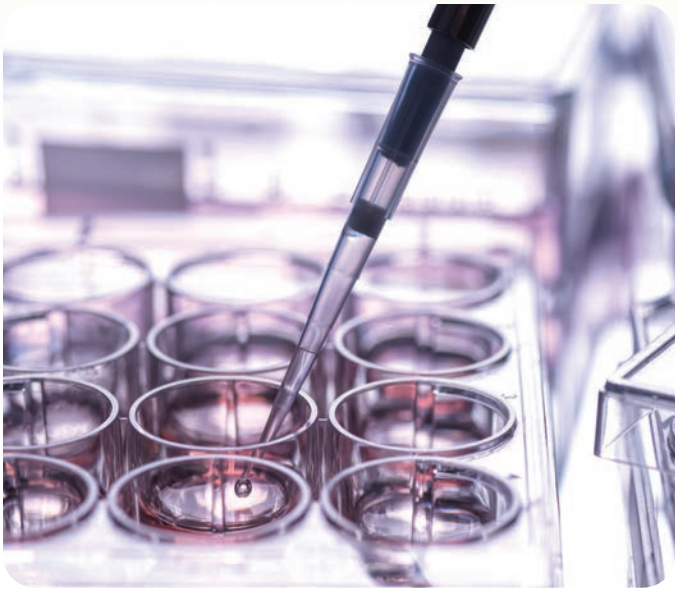
ORF Biologics' cell and media offerings are optimized to support a broad spectrum of biological and biomanufacturing workflows, including:

- Recombinant protein expression and biotherapeutic development
- AAV, lentiviral, and adenoviral vector generation
- Gene editing, stable cell line development, and high-content screening
- Immunology, oncology, toxicology, and drug-discovery assays
- Regenerative medicine, differentiation studies, and developmental biology
- Disease modeling using primary human cells
- Scalable bioprocess optimization using chemically defined, serum-free systems

COMMITMENT TO QUALITY

Every cell line and media product we offer is backed by rigorous quality control. Our cell lines undergo authentication, sterility and mycoplasma testing, viability assessment, and functional validation to ensure stable performance from the first thaw through extended culture. Media and feeds are manufactured under controlled conditions and tested for pH, osmolality, sterility, and lot-to-lot consistency.

Our stem cell products undergo specialized QC to verify genetic stability, expansion performance, and reproducible culture behavior. These standards ensure that your stem cell workflows remain consistent and reliable across experiments.



SUPPORTING YOUR SCIENCE

We understand that each research program has unique needs. ORF Biologics provides flexible vial sizes, bulk media and cell banking options, and customizable media development services to support programs ranging from early discoveries to scale-up manufacturing. Our technical support team includes experienced cell culture, stem cell, and bioprocess specialists who assist with protocol selection, troubleshooting, and culture optimization across CHO, HEK, and MSC systems.

Whether integrating a new recombinant expression workflow or establishing a complex cellular engineering pipeline, our scientists provide the expertise needed to incorporate our products effectively and confidently into your research.

OUR VISION

We envision a future where biological discovery and therapeutic innovation advance unhindered by inconsistent tools, supply challenges, or technical limitations. ORF Biologics is dedicated to creating accessible, reliable, and scientifically robust cell and media solutions that enable researchers to push the boundaries of what is possible. By choosing ORF Biologics, you partner with a team driven by scientific excellence, technical expertise, and a shared commitment to advancing human and animal health.

We invite you to explore the sections that follow covering CHO and HEK systems, MSCs, and media platforms to discover high-performance solutions designed to support your research with precision and reliability.

CELL PRODUCT OFFERINGS

Chinese Hamster Ovary (CHO) Platform

ORF Biologics' CHO Cell Platform provides a suite of well-characterized, high-performance Chinese Hamster Ovary (CHO) systems engineered to support modern bioproduction and research workflows. Our portfolio includes both adherent and suspension-adapted CHO lines optimized for recombinant protein expression, antibody development, and process intensification. Each cell line is extensively validated for identity, stability, sterility, growth performance, and productivity to ensure reliable operation from early screening through scale-up.

Complementing our cell systems, we offer a range of chemically defined and serum-free media formulations optimized for CHO expansion, productivity, and consistent performance across flasks, shake systems, and bioreactors. Together, these products provide a robust and scalable foundation for high-yield manufacturing, assay development, and exploratory research. Whether you are initiating a new expression workflow or refining an established process, the ORF Biologics CHO platform delivers the reproducibility and flexibility required for today's bioproduction environments.

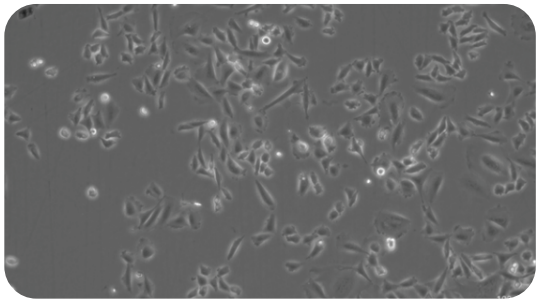
Chinese Hamster Ovary, K1 (CHO-K1) Cells

Size	Catalog Number
500,000 cells/vial	ORF.CHOK1-500

CHO-K1 (Chinese Hamster Ovary, K1 subclone) is a robust, widely used mammalian cell line derived from the ovary of the Chinese hamster (Cricetulus griseus). It is the preferred workhorse for biologics development and manufacturing, with over 70% of FDA-approved therapeutic proteins produced in CHO cells. ORF Biologics provides authenticated, high-viability CHO-K1 cells with proven performance in protein expression, synthetic biology, and basic research applications.

Product Specs

Format:	Cryopreserved, ≥5 x 10^5 viable cells per vial
Shipping:	Dry ice
Storage:	Vapor phase liquid nitrogen (-150°C or colder)
Viability Post-Thaw:	≥90%
QC Testing:	Mycoplasma: Negative Bacterial & fungal contamination: Negative Cell identity: STR-verified



Applications

- Biopharmaceutical Production: Ideal host for monoclonal antibodies, Fc-fusion proteins, growth factors, enzymes, and cytokines
- Synthetic Biology: Compatible with stable expression systems and high-throughput screening
- Research Tools: Suitable for functional studies of signaling pathways, toxicity testing, and reporter assays

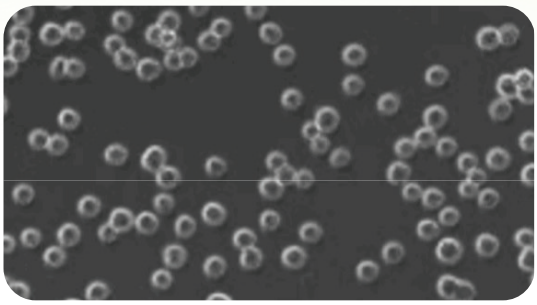
Suspension Chinese Hamster Ovary (CHO) Cells

Size	Catalog Number
20 Million cells/vial	ORF.CHOS-20

Suspension CHO Cells are suspension-adapted Chinese Hamster Ovary (CHO) cells optimized for high-density, serum-free culture and exceptional performance in transient and stable transfections. These cells provide a robust platform for efficient recombinant protein production and antibody expression. They grow reliably to high cell densities without serum, reducing variability and simplifying downstream purification, while delivering consistently high transfection efficiencies for rapid protein expression.

Product Specs

Format:	Cryopreserved, ≥2 x 10^7 viable cells per vial
Shipping:	Dry ice
Storage:	Vapor phase liquid nitrogen (-150°C or colder)
Viability Post Thaw:	≥90%
QC Testing:	Mycoplasma: Negative Bacterial & fungal contamination: Negative Cell identity: STR-verified



Applications

- Transient expression of proteins and antibodies
- Drug screening, biologics discovery and development
- Protein engineering, structural biology
- Production of recombinant enzymes
- Process development for therapeutic protein manufacturing

Human Embryonic Kidney (HEK) Cell Platform

ORF Biologics' HEK Cell Platform delivers a versatile set of human embryonic kidney (HEK) cell systems designed to support high-efficiency recombinant protein expression, viral vector production, and a wide range of research and translational applications. Our collection includes both adherent and suspension-adapted HEK lines optimized for robust growth, reliable transfection performance, and scalable productivity across diverse workflows.

Each HEK cell line undergoes comprehensive qualification, including identity verification, sterility and mycoplasma testing, growth characterization, and functional performance assays to ensure reproducibility from small-scale experiments to bioreactor-based production. To complement these systems, we offer chemically defined and serum-free media formulations tailored for HEK expansion, high-yield expression, and consistent vector generation.

Together, our HEK cell lines and media solutions provide a flexible and dependable foundation for biotherapeutic development, gene and cell therapy workflows, assay creation, and exploratory research. Whether initiating new vector production strategies or optimizing an existing expression platform, the ORF Biologics HEK portfolio delivers the performance, stability, and ease of use required for today's rapidly evolving biotechnology landscape.

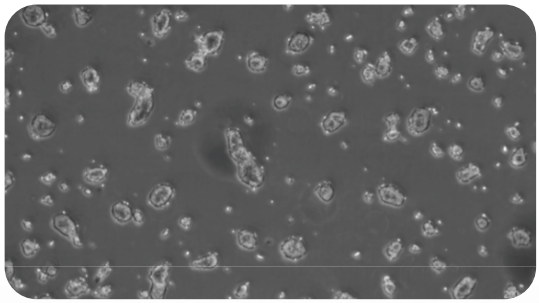
Human Embryonic Kidney 293 (HEK 293) Cells

Size	Catalog Number
500,000 cells/vial	ORF.HEK293-500

HEK293 cells are one of the most commonly used mammalian cell lines for protein expression, gene editing, and viral vector production. Originally derived from human embryonic kidney cells, this line has been adapted for exceptional ease of transfection, high protein yield, and compatibility with a variety of expression systems. ORF Biologics provides authenticated, high-viability HEK293 cells that are ideal for both research and bioproduction applications.

Product Specs

Format:	Cryopreserved, ≥5 x 10^5 viable cells per vial
Shipping:	Dry ice
Storage:	Vapor phase liquid nitrogen (-150°C or colder)
Viability Post Thaw:	≥90%
QC Testing:	Mycoplasma: Negative Bacterial & fungal contamination: Negative Cell identity: STR-verified



Applications

- Biopharmaceutical Production: Suitable for transient and stable expression of recombinant proteins and antibodies
- Viral Vector Production: Widely used for lentivirus, AAV, and adenovirus packaging
- Gene Editing & Screening: Ideal host for CRISPR/Cas9 and high-throughput screening applications
- Synthetic Biology: Excellent platform for synthetic circuits and engineered constructs

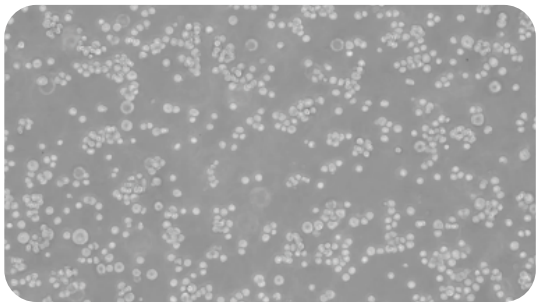
Suspension Human Embryonic Kidney (HEK) Cells

Size	Catalog Number
20 Million cells/vial	ORF.HEKS-20

Suspension HEK Cells are suspension-adapted Human Embryonic Kidney (HEK) cells designed for high-density, serum-free culture and optimized performance in both transient and stable transfection workflows. These cells offer a dependable platform for high-yield recombinant protein expression and for efficient production of viral vectors such as AAV and lentivirus. Their robust growth in serum-free suspension reduces variability, streamlines scale-up, and supports consistent productivity across batch sizes, while delivering high transfection efficiencies for rapid expression and vector generation.

Product Specs

Format:	Cryopreserved, ≥2 x 10^7 viable cells per vial
Shipping:	Dry ice
Storage:	Vapor phase liquid nitrogen (-150°C or colder)
Viability Post-Thaw:	≥90%
QC Testing:	Mycoplasma: Negative Bacterial & fungal contamination: Negative Cell identity: STR-verified



Applications

- Transient expression of recombinant proteins, antibodies, and complex human proteins
- Production of viral vectors, including AAV, lentiviral, and adenoviral systems for gene and cell therapy workflows
- Biologics discovery and assay development, including functional screening and high-throughput evaluation
- Protein engineering, structural biology, and functional characterization of human proteins
- Manufacturing process development for recombinant proteins and viral vector production in scalable suspension culture

Mesenchymal Stem Cell (MSC) Platform

ORF Biologics' Mesenchymal Stem Cell (MSC) Platform provides a robust collection of primary human MSC systems derived from well-characterized adipose tissue and bone marrow sources. These cells are engineered to support a broad range of research, translational, and preclinical applications, including regenerative medicine studies, immunomodulation research, and advanced cell biology workflows. Each MSC population is expanded under controlled conditions to ensure reliable growth, stable phenotype, and consistent performance across experimental replicates.

Every MSC line undergoes comprehensive qualification, including identity verification, sterility and mycoplasma testing, viability and growth characterization, and assessment of key surface markers associated with multipotency. To support their use across diverse workflows, we provide optimized serum-supplemented media systems tailored for MSC expansion, maintenance, and differentiation.

Together, our adipose-derived and bone marrow derived MSC solutions offer a dependable and flexible foundation for regenerative medicine research, tissue engineering, inflammation and immunology studies, and exploratory cell therapy development. Whether establishing new differentiation assays, modeling disease pathways, or optimizing MSC expansion protocols, the ORF Biologics MSC platform delivers the consistency, biological integrity, and ease of use required for today's advanced stem cell research environment.

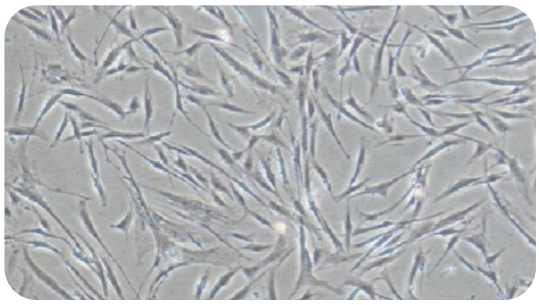
Human Adipose Derived Mesenchymal Stem Cells (Low Passage)

Size	Catalog Number
500,000 cells/vial	ORF.HADMSC-500

Human Adipose-Derived Mesenchymal Stem Cells (AD-MSCs) are multipotent stromal cells isolated from human adipose tissue, valued for their robust growth, high expandability, and strong differentiation potential. Widely used in regenerative medicine, immunology, and tissue engineering research, AD-MSCs provide a reliable human-derived model for studying repair, inflammation, and cell–cell signaling. ORF Biologics supplies authenticated, high-viability low passage (P1) AD-MSCs with consistent performance across expansion and differentiation workflows, supporting reproducible results in both basic and translational applications.

Product Specs

Format:	Cryopreserved, ≥5 x 10^5 viable cells per vial
Shipping:	Dry ice
Storage:	Vapor phase liquid nitrogen (-150°C or colder)
Viability Post-Thaw:	≥90%
QC Testing:	Mycoplasma: Negative Bacterial & fungal contamination: Negative Cell identity: STR-verified



Applications

- Regenerative medicine research, including studies of tissue repair, wound healing, and extracellular matrix biology
- Immunomodulation and inflammation assays to investigate cytokine signaling, immune cell interactions, and anti-inflammatory mechanisms
- Differentiation and developmental biology, supporting adipogenic, osteogenic, and chondrogenic lineage studies
- Tissue engineering and 3D culture models for exploring cell–matrix interactions and building physiologically relevant human systems

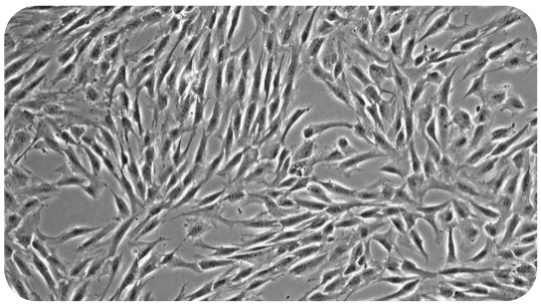
Human Bone Marrow Derived Mesenchymal Stem Cells (Low Passage)

Size	Catalog Number
500,000 cells/vial	ORF.HBMMSC-500

Human Bone Marrow–Derived Mesenchymal Stem Cells (BM-MSCs) are multipotent stromal cells isolated from human bone marrow, recognized for their well-established biology, strong immunomodulatory properties, and reliable differentiation capacity. Broadly used in regenerative medicine, inflammation research, and developmental studies, BM-MSCs serve as a physiologically relevant human model for investigating tissue repair, immune regulation, and stem cell function. ORF Biologics provides authenticated, high-viability low passage (P1) BM-MSCs with consistent growth characteristics and robust tri-lineage differentiation potential, enabling reproducible results across both exploratory studies and translational research workflows.

Product Specs

Format:	Cryopreserved, ≥5 x 10^5 viable cells per vial
Shipping:	Dry ice
Storage:	Vapor phase liquid nitrogen (-150°C or colder)
Viability Post-Thaw:	≥90%
QC Testing:	Mycoplasma: Negative Bacterial & fungal contamination: Negative Cell identity: STR-verified



Applications

- Regenerative medicine and tissue repair studies, leveraging their well-characterized biology and established use in musculoskeletal research
- Immunomodulation and immune regulation assays, including evaluation of cytokine responses and MSC–immune cell interactions
- Tri-lineage differentiation workflows supporting osteogenic, chondrogenic, and adipogenic development
- Disease modeling and hematopoietic niche research, providing a physiologically relevant human system for studying bone marrow microenvironments

MEDIA PRODUCT OFFERINGS

Adherent CHO Cell Culture Media

CHO-Adhere Growth Medium

Size	Catalog Number
450 mL	ORF.CHOAD-450
900 mL	ORF.CHOAD-900

Compatible Cell Type: Chinese Hamster Ovary, K1 (CHO-K1) Cells (ORF.CHOK1-500)

CHO-Adhere Growth Medium is a high-performance formulation specifically optimized for the robust growth and expansion of adherent Chinese Hamster Ovary (CHO) cells. This versatile medium supports reliable cell attachment and proliferation while maintaining high viability and consistent expression profiles across multiple passages.

CHO-Adhere Growth Medium promotes high-density monolayer cultures with minimal cellular stress. Its transfection-compatible formulation enables efficient gene delivery, making it well-suited for applications in gene expression studies, recombinant protein production, and early-stage biopharmaceutical development workflows.

Product Specs

Format:	Liquid
Shipping:	Gel Packs
Storage:	2-8 °C
QC Testing:	Mycoplasma: Negative Bacterial & fungal contamination: Negative Endotoxin: <0.5 EU/mL pH: 7.0 to 7.4 Growth Promotion: Pass

Applications

- High-density CHO cultures
- Monoclonal antibody production
- Transfection-based studies
- Bioprocessing and scale-up
- CHO cell engineering and screening

Specialty Suspension CHO Cell Media and Associated Feeds

OptiMax CHO Growth Media

Size	Catalog Number
1000 mL (Liquid)	ORF.OMCHO-1000
10 L (Powder)	ORF.OMCHO-10

Companion Specialty Feeds: OptiMax CHO Feed (ORF.OMCHOF-300; ORF.OMCHOF-3);
OptiMax Feed Flex (ORF.OMFF-100; ORF.OMFF-1)

Compatible Cell Type: Suspension Chinese Hamster Ovary (CHO) Cells (ORF.CHOS-20)

OptiMax CHO Growth Media is a fully defined, animal component–free formulation engineered to deliver robust cell growth, high viability, and superior protein productivity across CHO cell lines in batch, fed-batch, and perfusion processes. Developed for seamless scalability from development to commercial manufacturing, it provides a consistent and stable foundation for recombinant protein production, ensuring reliable performance under diverse process conditions. Its balanced blend of amino acids, vitamins, trace elements, and energy sources supports optimal cell metabolism while maintaining pH and osmolality stability throughout extended culture durations.

Designed for performance and regulatory confidence, OptiMax CHO Growth Media minimizes lot-to-lot variability and eliminates the risks associated with animal-derived materials. Its formulation enhances viable cell density, promotes sustained productivity, and integrates effortlessly with feed and supplementation strategies for process intensification. Available in both liquid and powder formats, OptiMax CHO Basal Media offers exceptional flexibility and consistency, making it an ideal choice for high-yield biomanufacturing and process development platforms.

Product Specs

Format: Liquid (ORF.OMCHO-1000), Powder (ORF.OMCHO-10)
Shipping: Gel Packs
Storage: 2-8 °C
QC Testing: Mycoplasma: Negative
Bacterial & fungal contamination: Negative
Endotoxin: <0.5 EU/mL
pH: 7.0 to 7.4
Growth Promotion: Pass

Applications

- Recombinant Protein Production: Supports high-yield antibody and protein expression in CHO systems
- Process Development: Ideal for screening, optimization, and seamless scale-up
- Intensified Bioprocessing: Performs reliably in fed-batch and perfusion workflows
- Cell Banking & Seed Expansion: Promotes robust growth for seed trains and cell bank generation

OptiMax Elite CHO Growth Media

Size	Catalog Number
1000 mL (Liquid)	ORF.OMCHOE-1000
10 L (Powder)	ORF.OMCHOE-10

Companion Specialty Feeds: OptiMax Elite CHO Feed (ORF.OMCHOFE-300; ORF.OMCHOFE-3);
OptiMax Feed Flex (ORF.OMFF-100; ORF.OMFF-1)
Compatible Cell Type: Suspension Chinese Hamster Ovary (CHO) Cells (ORF.CHOS-20)

OptiMax CHO Elite is an advanced, chemically defined basal medium engineered for high-intensity, high-density CHO cell culture. Designed to outperform conventional CHO media, it enables exceptional cell growth, viability, and productivity in demanding fed-batch and perfusion processes. With an optimized nutrient balance, enhanced buffering capacity, and refined osmotic control, OptiMax CHO Elite supports sustained high-cell-density performance and stable metabolic activity, making it ideal for next-generation biologics manufacturing and process intensification.

Developed as the next evolution of OptiMax CHO Media, OptiMax CHO Elite delivers superior yields and consistency while minimizing metabolic stress and variability. Its fully defined, animal component–free formulation ensures regulatory confidence and seamless scalability from development to production. For flexible integration into bioprocessing workflows, OptiMax CHO Elite is available in bulk powdered format, providing convenience, cost efficiency, and compatibility with large-scale media preparation systems.

Product Specs

Format: Liquid (ORF.OMCHOE-1000), Powder (ORF.OMCHOE-10)
Shipping: Gel Packs
Storage: 2-8 °C
QC Testing: Mycoplasma: Negative
Bacterial & fungal contamination: Negative
Endotoxin: <0.5 EU/mL
pH: 7.0 to 7.4
Growth Promotion: Pass

Applications

- High-Density Bioproduction: Enables exceptional cell growth and productivity for next-generation biologics
- Intensified Fed-Batch & Perfusion: Optimized for demanding high-intensity, long-duration culture processes
- Advanced Process Development: Ideal for developing and scaling high-performance CHO workflows
- Large-Scale Manufacturing: Powdered format supports cost-efficient media preparation and commercial production

OptiMax CHO Feed

Size	Catalog Number
300 mL (Liquid)	ORF.OMCHOF-300
3 L (Powder)	ORF.OMCHOF-3

Companion Specialty Media: OptiMax CHO Growth Media (ORF.OMCHO-1000, ORF.OMCHO-10)
Compatible Cell Type: Suspension Chinese Hamster Ovary (CHO) Cells (ORF.CHOS-20)

OptiMax CHO Feed is a fully defined, animal component–free nutrient supplement designed to enhance viable cell density, extend culture longevity, and boost recombinant protein yields in fed-batch CHO processes. Formulated to integrate seamlessly with OptiMax CHO Growth Media, it delivers a concentrated blend of amino acids, vitamins, energy sources, and trace elements that support sustained productivity and stable metabolic performance. With low lot-to-lot variability and broad CHO line compatibility, OptiMax CHO Feed provides a robust and scalable solution for high-efficiency upstream biomanufacturing.

Product Specs

Format: Liquid (ORF.OMCHOF-300), Powder (ORF.OMCHOF-3)
Shipping: Gel Packs
Storage: 2-8 °C
QC Testing: Mycoplasma: Negative
Bacterial & fungal contamination: Negative
Endotoxin: <0.5 EU/mL
pH: 7.0 to 7.4
Growth Promotion: Pass

Applications

- Fed-batch intensification to boost viable cell density and extend culture duration for higher recombinant protein yields
- Process scale-up from shake flasks to pilot and commercial bioreactors with consistent metabolic performance and stability
- Titer enhancement strategies requiring balanced nutrient delivery to support sustained productivity in high-density CHO cultures
- Platform process development for CHO-based biologics manufacturing using fully defined, animal component–free feeding regimens

OptiMax CHO Elite Feed

Size	Catalog Number
300 mL (Liquid)	ORF.OMCHOFE-300
3 L (Powder)	ORF.OMCHOFE-3

Companion Specialty Media: OptiMax Elite CHO Growth Media (ORF.OMCHOE-1000, ORF.OMCHOE-10)
Compatible Cell Type: Suspension Chinese Hamster Ovary (CHO) Cells (ORF.CHOS-20)

OptiMax CHO Elite Feed is a chemically defined, animal component–free supplement designed to support high-density, high-intensity CHO cultures grown in OptiMax CHO Elite Growth Media. This concentrated nutrient blend delivers sustained amino acids, vitamins, lipids, and trace elements to extend culture longevity, reduce metabolic stress, and enhance recombinant protein yields in fed-batch and intensified processes. Its consistent, scalable performance makes it ideal for modern upstream biomanufacturing.

Product Specs

Format: Liquid (ORF.OMCHOFE-300), Powder (ORF.OMCHOFE-3)
Shipping: Gel Packs
Storage: 2-8 °C
QC Testing: Mycoplasma: Negative
Bacterial & fungal contamination: Negative
Endotoxin: <0.5 EU/mL
pH: 7.0 to 7.4
Growth Promotion: Pass

Applications

- Fed-batch intensification, enabling sustained high-cell-density growth and extended culture duration
- High-productivity CHO biomanufacturing, supporting elevated recombinant protein expression in demanding processes
- Process development and optimization for advanced CHO platforms requiring stable metabolic performance
- Scale-up from bench to commercial production, providing consistent nutrient delivery across bioreactors and culture systems

Adherent HEK Cell Culture Media

HEK-Adhere Growth Media

Size	Catalog Number
450 mL	ORF.HEKAD-450
900 mL	ORF.HEKAD-900

Compatible Cell Type: Human Embryonic Kidney, 293 (HEK293) Cells (ORF.HEK293-500)

HEK-Adhere is a fully formulated, serum-supplemented growth medium optimized for the expansion and maintenance of HEK293 and related human cell lines. Designed to promote high cell viability, doubling efficiency, and superior transfection compatibility, this medium is ideal for use in recombinant protein production, antibody manufacturing, gene editing and transient expression studies.

Product Specs

Format: Liquid
Shipping: Gel Packs
Storage: 2-8 °C
QC Testing: Mycoplasma: Negative
Bacterial & fungal contamination: Negative
Endotoxin: <0.5 EU/mL
pH: 7.0 to 7.4
Growth Promotion: Pass

Applications

- Stable cell line development
- Recombinant protein and antibody production
- Transient and stable transfection
- Bioproduction scale-up
- HEK cell-based assays

Specialty Suspension HEK Cell Media and Associated Feeds

OptiMax HEK Growth Media

Size	Catalog Number
1000 mL (Liquid)	ORF.OMHEK-1000
10 L (Powder)	ORF.OMHEK-10

Companion Specialty Feeds: OptiMax HEK Feed (ORF.OMHEKF-300) OptiMax Feed Flex (ORF.OMFF-100)
Compatible Cell Type: Suspension Human Embryonic Kidney 293 (HEK293) Cells (ORF.HEKS-20)

OptiMax HEK Growth Media is a chemically defined, animal component–free basal medium specifically formulated for high-performance suspension cultures of HEK293 and derivative cell lines. Designed to maximize cell growth, viability, and recombinant protein or viral vector productivity, OptiMax HEK provides a balanced, low-stress environment ideal for transient transfection and stable expression systems. Its optimized nutrient profile, precise buffering capacity, and controlled osmolality ensure consistent performance and scalability across development and production platforms.

As an advanced medium tailored for modern HEK293 suspension processes, OptiMax HEK delivers superior culture robustness and reproducibility while eliminating variability associated with serum or undefined additives. Compatible with diverse feed and supplementation strategies, it supports efficient scale-up from shake-flask to bioreactor operations. For streamlined large-scale manufacturing, OptiMax HEK is available in bulk powdered format, offering cost-effective preparation and reliable performance in commercial bioprocess environments.

Product Specs

Format:	Liquid (ORF.OMHEK-1000), Powder (ORF.OMHEK-10)
Shipping:	Gel Packs
Storage:	2-8 °C
QC Testing:	Mycoplasma: Negative Bacterial & fungal contamination: Negative Endotoxin: <0.5 EU/mL pH: 7.0 to 7.4 Growth Promotion: Pass

Applications

- High-Density Bioproduction: Enables exceptional cell growth and productivity for next-generation biologics
- Intensified Fed-Batch & Perfusion: Optimized for demanding high-intensity, long-duration culture processes
- Advanced Process Development: Ideal for developing and scaling high-performance CHO workflows
- Large-Scale Manufacturing: Powdered format supports cost-efficient media preparation and commercial production

OptiMax HEK Feed

Size	Catalog Number
300 mL (Liquid)	ORF.OMHEKF-300
3 L (Powder)	ORF.OMHEKF-3

Companion Specialty Media: OptiMax HEK Growth Media (ORF.OMHEK-1000, ORF.OMHEK-10)
Compatible Cell Type: Suspension Human Embryonic Kidney (HEK293) Cells (ORF.HEKS-20)

OptiMax HEK Feed is a chemically defined, animal component–free supplement designed to enhance the performance of OptiMax HEK Growth Media in high-density suspension HEK293 cultures. This concentrated nutrient blend supports robust cell growth, high viability, and improved recombinant protein or viral vector productivity while maintaining controlled osmolality and metabolic stability. Compatible with both transient transfection and stable expression workflows, OptiMax HEK Feed delivers consistent, scalable performance across shake flasks, bioreactors, and commercial manufacturing environments.

Product Specs

Format:	Liquid (ORF.OMHEKF-300), Powder (ORF.OMHEKF-3)
Shipping:	Gel Packs
Storage:	2-8 °C
QC Testing:	Mycoplasma: Negative Bacterial & fungal contamination: Negative Endotoxin: <0.5 EU/mL pH: 7.0 to 7.4 Growth Promotion: Pass

Applications

- Fed-batch enhancement to sustain high-density HEK293 suspension cultures and extend productive culture duration
- Transient transfection workflows, supporting high-yield recombinant protein and viral vector production
- Stable expression process development, maintaining metabolic balance and consistent long-term productivity
- Scalable upstream bioprocessing, enabling seamless transition from shake flasks to pilot and commercial bioreactor systems

Specialty Universal CHO/HEK Cell Feeds

OptiMax Feed Flex

Size	Catalog Number
100 mL (Liquid)	ORF.OMFF-100
1 L (Powder)	ORF.OMFF-1

Companion Specialty Media: OptiMax HEK Growth Media (ORF.OMHEK-1000, ORF.OMHEK-10), OptiMax CHO Growth Media (ORF.OMCHO-1000, ORF.OMCHO-10), OptiMax Elite CHO Growth Media (ORF.OMCHOE-1000, ORF.OMCHOE-10)
Compatible Cell Type: Suspension Human Embryonic Kidney (HEK293) Cells (ORF.HEKS-20), Suspension Chinese Hamster Ovary (CHO) Cells (ORF.CHOS-20)

OptiMax Feed Flex is a universal, chemically defined, animal component–free supplement formulated to enhance OptiMax CHO, OptiMax CHO Elite, and OptiMax HEK Growth Media. This concentrated nutrient blend supports sustained cell growth, high viability, and improved protein or viral vector productivity across CHO and HEK293 suspension systems. By stabilizing metabolism and preventing nutrient depletion in fed-batch and intensified processes, OptiMax Feed Flex delivers consistent, scalable performance from shake flasks to commercial bioreactors.

Product Specs

Format:	Liquid (ORF.OMFF-100), Powder (ORF.OMFF-1)
Shipping:	Gel Packs
Storage:	2-8 °C
QC Testing:	Mycoplasma: Negative Bacterial & fungal contamination: Negative Endotoxin: <0.5 EU/mL pH: 7.0 to 7.4 Growth Promotion: Pass

Applications

- Universal fed-batch supplementation for CHO and HEK293 suspension cultures to support sustained high-density growth
- Process intensification in recombinant protein and viral vector production through stabilized nutrient delivery
- Flexible feeding strategies, including bolus, stepwise, or continuous feed regimens across diverse upstream workflows
- Scalable bioprocessing, enabling consistent performance from shake flasks to pilot and commercial bioreactor systems

Mesenchymal Stem Cell Growth Media

OptiElite MSC Growth Medium

Size	Catalog Number
450 mL	ORF.OEMSC-450
900 mL	ORF.OEMSC-900

Compatible Cell Type: Human Bone Marrow Derived Mesenchymal Stem Cells (ORF.HBMMSC-500), Human Adipose Derived Mesenchymal Stem Cells (ORF.HADMSC-500)

OptiElite MSC Growth Media is a high-performance media formulation engineered to support the vigorous, reliable expansion of mesenchymal stem cells including Human Bone Marrow–Derived and Human Adipose-Derived Mesenchymal Stem Cells. Designed for high-density culture, OptiElite MSC Growth Media promotes strong proliferation while preserving MSC morphology, viability, and multipotent potential across multiple passages. Its optimized composition maintains cell health under demanding growth conditions and delivers consistent performance from thaw to expansion. The media is fully compatible with widely used transfection reagents, enabling efficient gene delivery and downstream functional studies without compromising growth characteristics. With a formulation built for stability, reproducibility, and ease of use, OptiElite MSC Growth Media provides a dependable platform for MSC culture while maintaining optimal stem cell quality and biological integrity.

Product Specs

Format:	Liquid
Shipping:	Gel Packs
Storage:	2-8 °C
QC Testing:	Mycoplasma: Negative Bacterial & fungal contamination: Negative Endotoxin: <0.5 EU/mL pH: 7.0 to 7.4 Growth Promotion: Pass

Applications

- Expansion of human MSCs from bone marrow, adipose tissue, and other sources, supporting high-density proliferation with preserved morphology and viability
- Maintenance of MSC multipotency during routine passaging for downstream differentiation, functional assays, and therapeutic model development
- Gene delivery workflows, including transfection-based studies, facilitated by compatibility with commonly used transfection reagents
- Research-scale and preclinical process development, enabling consistent, reproducible MSC growth from thaw through multi-passage expansion

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