Product Information Sheet

Suspension Chinese Hamster Ovary (CHO) Cells

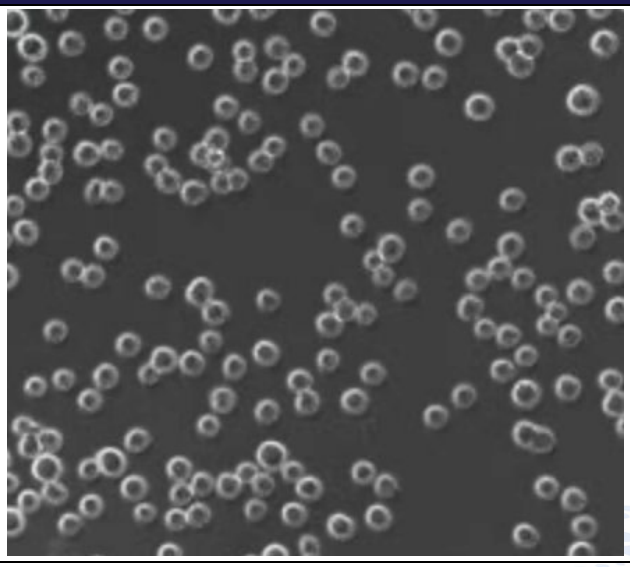
Catalog Numbers: ORF.CHOS-20

Product Overview	
Product Name	Suspension Chinese Hamster Ovary (CHO) Cells
Catalog Numbers	ORF.CHOS-20
Sizes	≥20 Million cells/vial
Product Form	Cryopreserved (Frozen)
Cell Type	Chinese Hamster Ovary Epithelial Cells
Additional Reagents Required	OptiMax CHO Basal Media + OptiMax CHO Feed + OptiMax Feed Flex or OptiMax CHO Elite Basal Media + OptiMax CHO Elite Feed + OptiMax Feed Flex (for high-density applications)

Product Description

ORF Biologics 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 Image



Cell Characteristics	
Growth Characteristics	Suspension under standard culture conditions
Cell Origin	Chinese hamster (Cricetulus griseus)

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Cell Thawing and Subculturing Protocol	
Thawing	To thaw Suspension CHO cells, remove the vial from dry ice or liquid nitrogen storage and promptly place it in a 37°C water bath. Gently agitate the vial continuously while monitoring for thawing. As soon as only a small amount of ice remains, remove the vial from the bath to prevent over-thawing, which can compromise cell viability. Immediately disinfect the outside of the vial using 70% isopropanol before proceeding to the next step. Working under sterile conditions in a laminar flow hood, carefully open the vial. If a pellet or clumps are present, gently resuspend to disperse the cells and transfer the entire contents into a 125-mL sterile, disposable polycarbonate Erlenmeyer flask containing 30 mL of pre-warmed Supplemented OptiMax CHO or Supplemented OptiMax CHO Elite Medium. Cultures should be maintained in a humidified incubator at 37 °C with 5% CO_2 on an orbital shaker platform set at 125 rpm. After 24 hours, determine viable and total cell counts. Viability is typically greater than 70%; if it falls below 60%, a new vial should be thawed. For best performance, allow cells to recover for at least five passages following thawing before using them in transfection or experimental applications.
Subculturing	Suspension CHO cells are typically passaged every 48–72 hours, once they reach a density of 1.0 × 10^6 to 1.5 × 10^6 viable cells/mL. At each passage, determine viable and total cell counts and calculate the appropriate split ratio to reseed cultures at 0.5 × 10^5 to 0.5 × 10^6 viable cells/mL. Dilute cells into fresh, pre-warmed Supplemented OptiMax CHO Medium or Supplemented OptiMax CHO Elite Medium to achieve the desired seeding density. Cultures are generally maintained in 125-mL or 250-mL sterile, disposable polycarbonate Erlenmeyer flasks with vented caps, containing 40 mL or 80 mL of working volume, respectively. This regular passaging schedule supports optimal growth and maintains cell health for reliable experimental performance.
Alternative Cell Culture Systems and Scale Up	Suspension CHO cell cultures can be expanded in spinner flasks, stirred-tank bioreactors, or wave bags. The optimal impeller speed, shaking rate, and seeding density should be determined and adjusted for each culture system. As a general guideline, the recommended initial seed density is 0.2 × 10^6 viable cells/mL.

Storage and Stability		
	Storage Temperature	**Storage Time**
Suspension CHO Cells (ORF.CHOS-20)	Liquid Nitrogen	12 months
OptiMax CHO Base Media (ORF.OMCHO-1000), OptiMax CHO Elite (ORF.OMCHOE-1000)	2-8°C	3 months
OptiMax CHO Feed (ORF.OMCHOF-50), OptiMax Feed Flex (ORF.OMFF-	2-8°C	3 months

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25), OptiMax CHO Elite Feed (ORF.CHOFE-50)		
Supplemented OptiMax CHO or OptiMax CHO Elite Growth Medium	2-8°C	Up to 3 weeks
Avoid repeated freeze-thaw cycles for cells. Avoid repeated exposure to room temperature and light for media.		

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