

ORCHID

HEK 293 cell culture medium

Serum free, animal component free, for maximal virus and recombinant protein production.

BENEFITS

Developed to maximize virus and recombinant protein production with HEK 293 cells. The medium provides equivalent of higher growth of HEK 293 cells when compared to serum-containing medium. The medium offers

Simplicity: Ideal from bench to manufacturing scale.

Serum-free and animal component free: Reduces the risk for animal derived contaminants.

Fully defined: It doesn't contain hydrolysates or other complex additives. Thus, process variability is reduced.

Antibiotic-free: No risk of antibiotic traces, hidden contamination and endotoxins.



PRODUCT INFORMATION

ORCHID medium is free of serum, animal components and hydrolysates. The medium is developed for maximal virus and recombinant protein production in suspension HEK 293 cells. If combined with ORCHID Feeds medium supports a viable cell concentration up to 4×10^7 /mL. HEK 293 suspension cells have been carried for more than 2 years in ORCHID medium with no loss of viability.

ORCHID medium is easy-to-use and suitable for suspension cultures. It requires only minimal or no adaptation from other serum-free media.

APPLICATION

ORCHID medium is dedicated to maximal production of wide range of viruses through viral infection, e.g. adeno virus, lenti virus, influenza virus.

ORCHID is also suitable for recombinant protein expression for human like glycosylation, for example Erythropoietin, antibodies, Fc-fusion proteins.

ORCHID is not suitable for transient expression or viral vector production through DNA complexing agents, e.g. Poly Ethylene Imine (PEI). For this application we have developed the special medium IVY.

MEDIUM SPECIFICATION

Name	ORCHID
Regulatory	Serum-free, animal component free, hydrolysate free, antibiotic free
Available Form	Liquid & Powder
Cell Line	HEK 293 suspension cells
Storage Condition	2-8 °C, protect from light
Application	For research and manufacturing

ORCHID PERFORMANCE

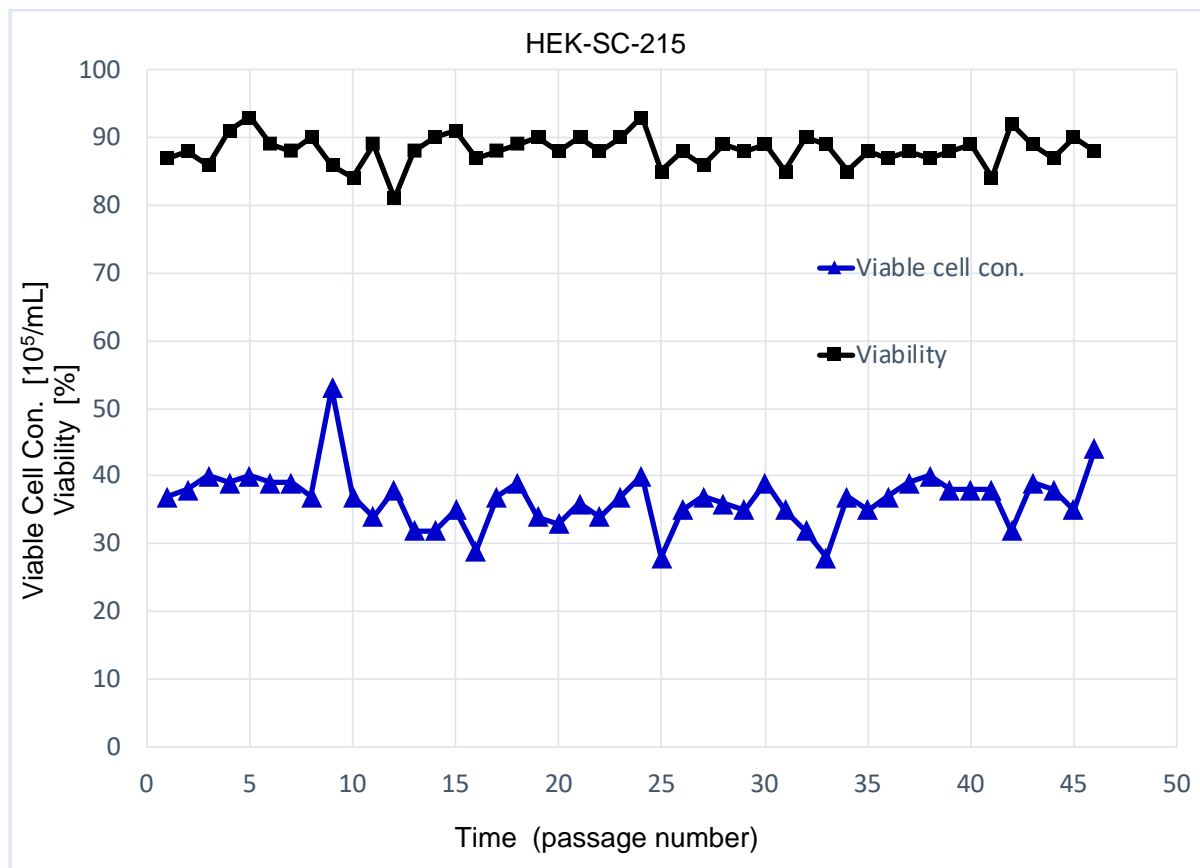


Figure 1: HEK293 suspension cells are cultured in stock culture (shake flask) in ORCHID S medium for 45 passages (135 days). Inoculation cell concentration was kept by 5x10⁵/mL. Cells were split every 3rd day.

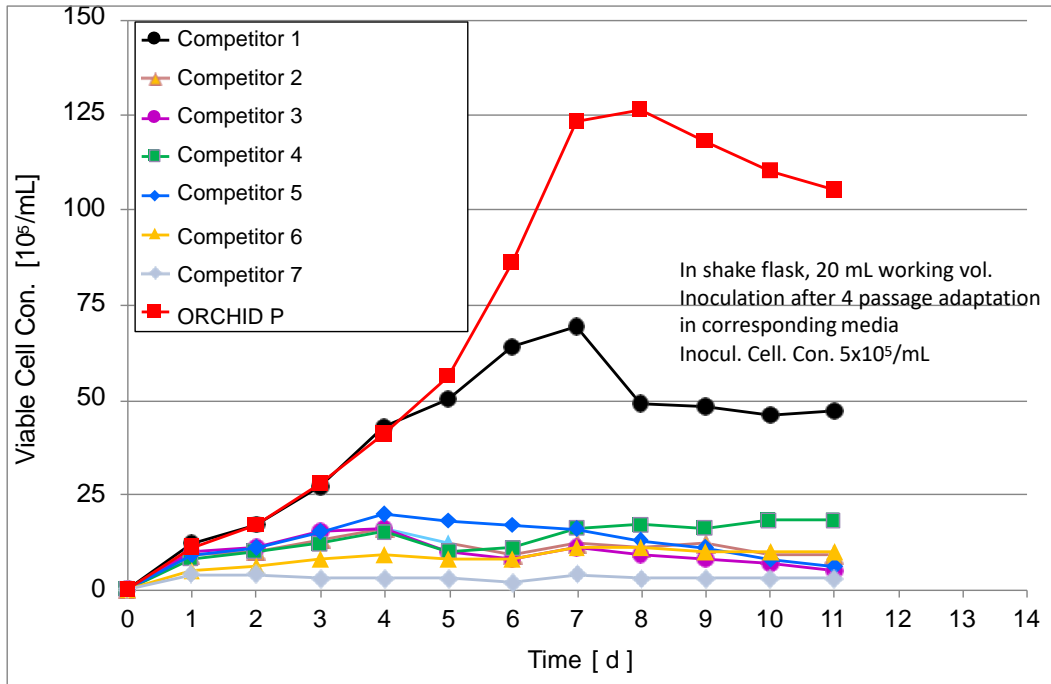


Figure 2: Cell growth performance of HEK293 suspension cells in different culture media. Cells are adapted to corresponding media for 4 passages. In some competitor's media the adaptation was difficult. Experiment is performed in batch.

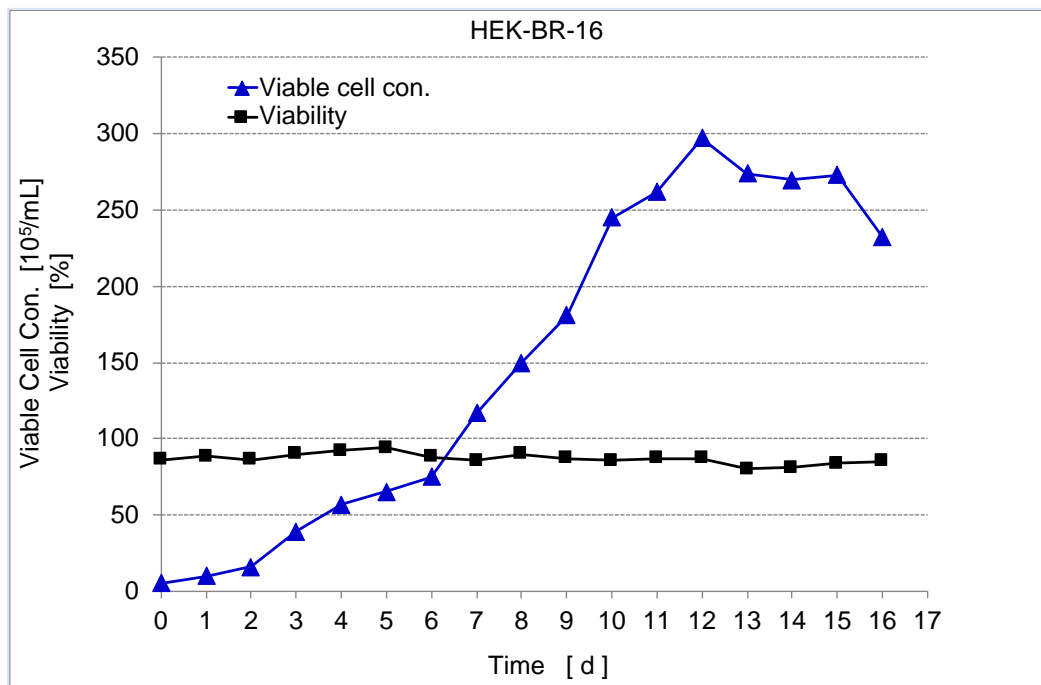


Figure 3: Cell growth performance of HEK 293 suspension cells in ORCHID P medium with combination of ORCHID Feeds for 16 days as fed-batch experiment in 4 L bioreactor. Viability was kept above 70% for 16 days. Cells reached peak cell concentration of 3×10^7 /mL at day 12.

ORDERING INFORMATION

Name	Application	Formulation	Volume	Catalogue number
ORCHID P	Production medium	Liquid	1 L	ORDP45-L1
ORCHID P	Production medium	Liquid	0,5 L	ORDP45-L05
ORCHID S	Stock culture medium	Liquid	1 L	ORDS45-L1
ORCHID S	Stock culture medium	Liquid	0,5 L	ORDS45- L05
ORCHID P	Production medium	Powder	100 L	ORDP45-P100
ORCHID S	Stock culture medium	Powder	100 L	ORDS45-P45
ORCHID FEED A	Feed A medium	Liquid	0,5 L	OFA77-L05
ORCHID FEED B	Feed B medium	Liquid	0,1 L	OFB24-L01

Custom made media are possible. GMP grade powder medium is available.

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