

Innovative Life Science Solutions™

INCELL Corporation LLC

12734 Cimarron Path, San Antonio, TX 78249

Phone: 210-877-0100 FAX: 210-877-0200

www.incell.com e-mail: info@incell.com

Product Description ©2016

ACE™ Chemically Defined Cell Culture Medium (SPECIAL ORDER)

General Description

ACE™ Medium is a proprietary, GMP-manufactured low protein (20 mg/L), chemically defined serum-free, highly enriched liquid culture medium for culture of many human and animal cell types. It was optimized to obtain superior cell viability and growth with minimal adaptation. INCELL's IBHK-4 cell substrate line, which is being developed as a for propagation high titer viral vaccines, has been adapted to grow in ACE™ Medium (Figure 1). Specifically, the cells grown in ACE™ support GMP manufacturing of vaccinia-based vaccines and their recombinant vectors.

This versatile medium yields excellent production of IgG from hybridomas (both NS/O and Sp/2.0 derived clones) vs. other commercially available serum-free media (e.g., Figure 2). This formulation is generally used as a complete medium but it can be supplemented with serum or other factors for augmenting growth of fastidious cell types, to enhance cell attachment to a substrate or to analyze pathways of cell growth or differentiation.

Formulation and Packaging

The standard ACE™ medium formulation has a unique mixture of salts, amino acids, sugars and growth supplements to support cell growth, function, and manufacturing. It contains recombinant human insulin, transferrin, Pluronic® F68, cholesterol, and a stable glutamine-substitute, but no phenol red or antibiotics. Its buffering system was developed to maintain a stable pH and eliminate the need for CO₂. There is no pH indicator in ACE™ so there is no need for downstream processing removal, or concerns about secondary effects such as hormone mimicry. ACE™ medium is packaged in 500 mL (AACE-500), 1 Liter (AACE-1000) and 2 liter (AACE-2000) sizes. The media is custom ordered and requires a 3-to 4-week lead-time and 20 liter order. [Inquire](#)

Manufacturing

ACE™ is manufactured according to FDA and cGMP guidelines in an ISO Class 7 environment. All components are aseptically filtered through a 0.22 micron filter, endotoxin-tested and checked for sterility (bacteria, fungi, and mycoplasma). A Certificate of Analysis is provided for each lot to assure that it meets acceptance specifications.

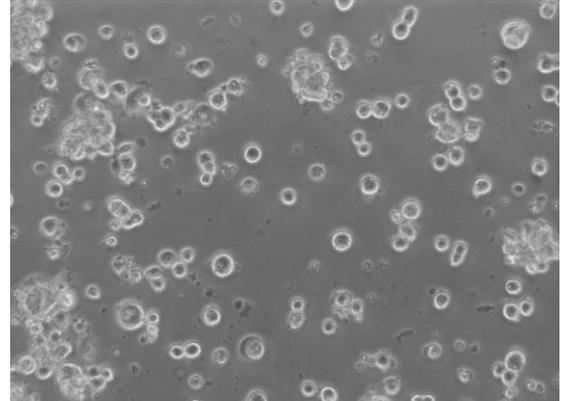
Specifications

pH
Osmolality
Endotoxin
Sterility
Visual
Growth Assay

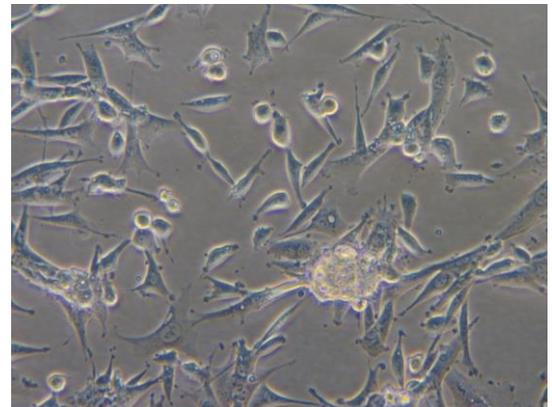
Acceptance Criteria

6.7-7.2
300-340 mOsm/kg
≤0.5 EU/mL
No microbial growth
Clear, slight yellow tint, No obvious particulates
Viable cell count of IBHK-4 or hybridoma cell lines

Figure 1.
IBHK-4 Cells Growing in Suspension Culture



Healthy cells grow in aggregates and as single cells in suspension (ACE™ culture medium, phase contrast x200)



IBHK-4 cells transferred to serum-supplemented ACE™ culture media are a mixed monolayer-suspension culture; attached cells are similar to parental BHK21-C13 cells (phase contrast x200)

Media Specifications

ACE™ is manufactured according to FDA and cGMP guidelines in an ISO Class 7 environment. All components are aseptically filtered through a 0.22 micron filter, endotoxin-tested (LAL or EndoSafe® assay) and checked for sterility (bacteria, fungi, and mycoplasma). Each lot has a Certificate of Analysis.

Storage of Ace™ Medium

Store at 2-8°C when not in use. Do not freeze.

Ordering Information

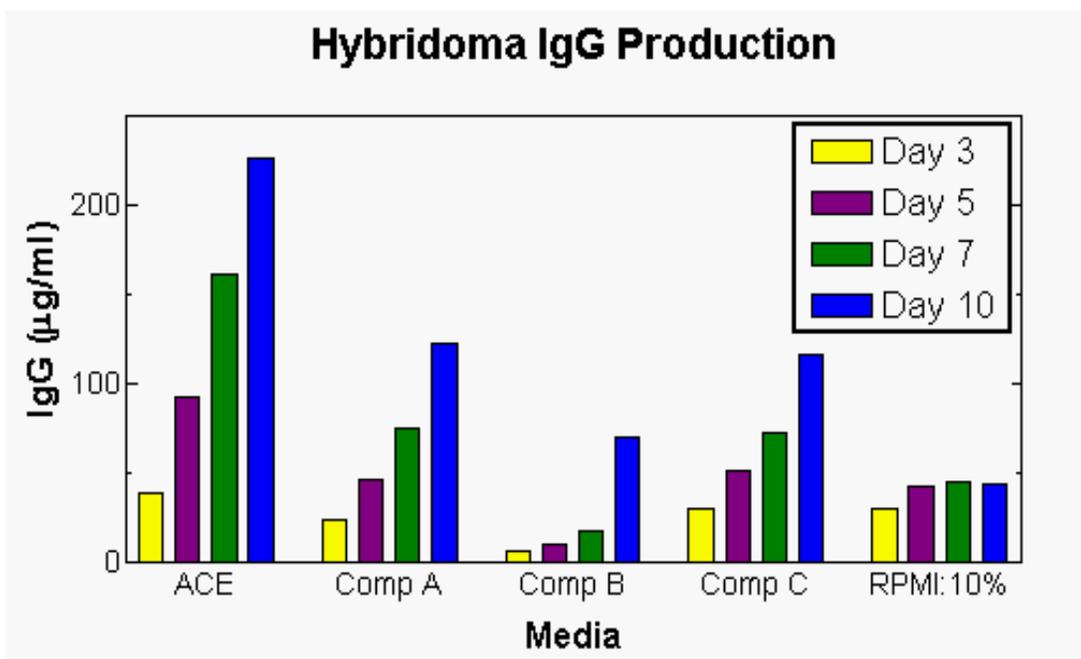
ACE™ IS A SPECIAL ORDER MEDIA. Use MasterCard or Visa or an approved purchase order to buy ACE™ from:
INCELL Corporation, LLC
12734 Cimarron Path, San Antonio, TX 78249
Phone: 210-877-0100 Toll-free: 1-800-364-1765
Fax: 210-877-0200
www.incellonline.com

Technical Assistance

The scientists at INCELL are available to discuss the particular needs of your cells and to assist you in your cell culture applications. Call 1-800-364-1765 or e-mail info@incell.com.

Applications NOTE: ACE™ medium is in FDA Drug and Device Master Files, but ACE™ medium has not been tested by INCELL for any specific diagnostic or therapeutic use. To request use of a Master File, call, FAX, or send an e-mail to masterfiles@incell.com.

Figure 2. ACE is a High Performance Medium for Manufactured Products such as Monoclonal Antibodies



This is a comparison of studies showing production of IgG monoclonal antibody (Ab) from INCELL's E10 hybridoma cells (anti-human herpes virus 8 Ab) derived from the SP2/0 cell line. Much higher concentrations of Ab were produced by E10 cells when the cells were grown as suspension cultures in chemically defined ACE™ culture medium compared to other defined media vs. standard RPMI medium supplemented with 10 % fetal bovine serum.