

Product Name:	QuaCell® Fetal Bovine Serum (FBS), Qualified
Catalog Number:	B21001
Unit Size Availability:	500ml
Formulation:	Frozen
Defined Storage Conditions:	-30°C ~ -5°C
Stability:	60 months

Description

For many applications, Fetal Bovine Serum (FBS) is commonly used as a supplement for growth medium. It functions or provides a vast array of:

- Macromolecular Proteins
- Low-Molecular Weight Nutrients as an additional Source of Amino Acids, Carbohydrates, Vitamins
- Carrier Proteins for Water-Insoluble Components
- Raises the Buffering Capacity of the Medium
- Binds and/or Neutralizes Toxic Components
- Reduces Cell Oxidative Stress Decreasing Apoptosis like Insulin and other Growth Factors
- Provides Growth-Promoting Factors Easing Cell Adaptation

This variegated spectrum of often undefined components stimulate and enhance the in vitro growth of cells with its inclusion of hormones, essential growth and attachment factors and other essential niche requirements for optimal cell performance. The wide spectrum of macromolecular proteins that constitute Serum are part and parcel of a final complex mixture that segues and culminates into those necessary and indispensable unique niche requirements that stimulates the in vitro growth and development of specific cells in culture. Animal Serum provides not only an additional source of amino acids, carbohydrates and vitamins but also decreases concerns over whether a particular basal medium of choice provides all the aforementioned essential nutrients. Furthermore, Serum not only acts by binding or neutralizing toxic elements in the growth milieu but also increases the buffering capacity of the medium itself. Most often, Serum-supplemented applications contain just the right quantity and quality of growth-promoting factors to help cells easily adapt from one formulation to another. Choosing the appropriate Serum may prove to be more important than the choice of basal media itself.

Quacell Biotechnology's Pre-Screened and Pre-Tested Serum and Serum Products undergo the most stringent and rigorous Quality Control/Assurance Standards and Protocols testing all raw materials and finished products in order to meet the demands of international markets and ensure high quality and consistency. All our serum products meet approved compliance validation and specifications prior to use and/or release of the final product to the end-user. All our Serum and Serum Products (Human and Animal) undergo a methodical and comprehensive battery of Physicochemical, Microbiological and Biological Performance Testing Procedures. Each batch is traceable, well documented from source of origin through the thorough and systematic Quality Control process. All documentation and certification are available upon request.

Parameters

Filter	100 nm sterile-filtered
Original	Uruguay
Age	Fetal
Endotoxin Level	≤5 EU/ml
Doubling Time (sp2/0)	≤16 h
Single Cell Growth Rate	≥20 %

Product Intended Use

Use aseptic technique when handling or supplementing this medium. This product is for research or for further manufacturing use.

CAUTION: Not for human or animal therapeutic use. Uses other than the intended use may be a violation of local law.

Safety information

Read the Material Safety Data Sheets (MSDS) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

Storage / Stability

This material, like all other materials utilized in the laboratory setting should be handled only by trained personnel familiar with Laboratory Procedures regarding the Handling, Use, Storage and Disposal of chemical products especially hazardous or potentially hazardous products. For prolonged storage, place in the dark under the specified storage conditions stipulated on the label.

Please note that Serum should never be taken from a frozen or refrigerated state and placed in a water bath to expedite the thawing/warming procedure. Such handling compromises the serum quality and may cause the bottle to break. After the serum has reached room temperature, it may be then pre-warmed slowly to 37°C while mixing the contents thoroughly before adding to the medium of choice.

Procedure

1. Take a bottle out of the proper storage conditions at – 20°C and read the label.
2. Thaw to room temperature.
3. Ensure that the cap of the bottle is tight.
4. Gently swirl the solution in the bottle.
5. Wipe the outside of the bottle with a disinfectant solution such as 70% ethanol.
6. Using aseptic/sterile technique under a laminar-flow culture hood, work according to established protocols.

As the selection of a nutrient medium or supplementation thereof is strongly influenced, among others, by many factors, of note are three major considerations:










- ✧ Cell Type
- ✧ Type of Culture (e.g., Clonal, Monolayer, Suspension)
- ✧ Degree of Chemical Definition

It is recommended to review the extensive literature concerning cell-culture media and its supplementation and the physiological parameters required for each specific cell-line as per their essential requirements.

Related Products

Cat.No.	Product
B21003	QuaCell® Fetal Bovine Serum, Charcoal Stripped

Explanation of Symbols and Warnings

		
Sterilized using aseptic processing techniques	Use By:	Store Temperature
		
Batch code	Dry preservation	Keep away from light
		
Research use only	GMP Manufacturing	Sticky notes