Research Grade Fetal Bovine Serum, South American Origin

HYCLONE SERA

Research Grade Fetal Bovine Serum (FBS), South American Origin is a cost-effective solution for many cell culture research applications (Fig 1). Typically sourced from Brazil and Uruguay, South American FBS comply with EU regulations with strict manufacturing and quality control procedures to ensure a consistent and high-quality serum. The serum is available for customers located in Europe, Asia, and Africa.

Key features of Research Grade FBS, South American origin:

- Sourced in EU-approved South American countries
- Complete traceability back to original source
- Low in antibodies and high in growth factors
- Virus panel testing according to 9 CFR 113.53

Specifications

Research Grade FBS is filtered through three sequential 100 nm (0.1 µm) pore size-rated filters. Before dispensing, each lot of serum is pooled to ensure uniformity and consistency between bottles (true pool technology).

Research Grade FBS is assayed for pH, osmolality, gamma globulin, total albumin, sodium, potassium, chloride, uric acid, calcium, phosphorus, alkaline phosphate, LHD, SCOT, oestradiol, and testosterone. Assays are subject to change without notice.

Product storage and handling

Sera should be stored at -10°C or below. Once thawed, sera can be stored at 2°C to 8°C for up to six weeks in order to maintain quality. If the serum needs to be stored longer than six weeks after opening, it is recommended to aliquot the serum into convenient volumes and refreeze. Handle bottles that have been stored in freezer carefully. Avoid large temperature shifts and protect the serum from exposure to light. Refer to safety data sheet for any safety recommendations. Storage requirements are listed on the product label.



Fig 1. Research Grade FBS is used in cell culture research applications.

Thawing

Remove serum from storage at -10°C or lower and place in a refrigerator overnight at 2°C to 8°C. Transfer the serum to a 37°C water bath, agitate periodically to mix the solutes concentrated at the bottom of the container. Do not hold the serum at 37°C any longer than necessary after thawing. Thawing serum in a bath above 40°C without mixing can denature the concentrated proteins in the bottom of the container and precipitates might form in the bottle. Thawing serum at higher temperatures is not recommended.

Alternatively, bottles can be placed directly from storage at -10°C or lower into a 37°C water bath. Bottles should be agitated to enhance mixing and thawing. Turbidity and flocculent material might be present after thawing or after prolonged storage.

Experience indicates that regardless of the method used to thaw serum, it is critical that it is mixed during the thawing process to prevent the formation of gradients and subsequent precipitation. Because of differences in thawing rates of different components, serum will form a gradient if it is not mixed as it thaws. If serum is allowed to remain in such a gradient state, precipitation is likely to occur.

General culture recommendations

Supplementation of classical media such as Dulbecco's Modified Eagle's Medium (DMEM) is recommended at a range between 5% and 10% Research Grade FBS to support culture of a wide variety of cell lines and applications.

Quality control testing

Quality control test specifications are listed in Table 1.

Table 1. Test specifications

Endotoxin (Limulus amebocyte lysate gel clot assay)	≤ 10 EU/mL
Hemoglobin (spectrophotometric)	< 25 mg/dL
Sterility testing (current USP)	
Bacteria and fungi	No growth
Virus Testing (9 CFR 113.53)	
Fluorescent antibody	
Bovine viral diarrhea virus	Tested
Cytopathogenic agents (e.g., IBR)	Not detected
Hemadsorbing agents (e.g., PI3)	Not detected
Mycoplasma	
Large volume, direct culture	Not detected
Hoechst DNA stain	Not detected
Certificate of analysis	Included

Related products

HyClone classical media

HyClone™ classical media are manufactured using ISO 9001- and ISO 13485-certified processes. All raw material components have passed strict quality control testing to ensure the appropriate level of quality. The classical media are hydrated using purified process water and have undergone 0.1 µm sterile filtration.

HyClone phosphate buffered saline (PBS)

Our PBS products are manufactured according to cGMP guidelines using ISO 9001- and ISO 13485-certified processes. The products have full traceability and documented origin of all formula ingredients.

HyClone trypsin protease

Our trypsin protease is derived from porcine pancreas and is gamma irradiated prior to hydration and filling. The product is formulated without calcium and magnesium.

Ordering information

Product	Size	Product code
HyClone Research Grade FBS, South American Origin	100 mL	SV30160.02
	500 mL	SV30160.03
HyClone Research Grade FBS, South American Origin Heat inactivated	100 mL	SV30160.02HI
	500 mL	SV30160.03HI
HyClone Research Grade FBS, South American Origin Irradiated	500 mL	SV30160.03IR
HyClone Fetal Bovine Serum, South American Origin	50 mL	SV30180.01
	100 mL	SV30180.02
	500 mL	SV30180.03

Find certificates of analysis, safety data sheets, standard formulations, product inserts, and protocols at www.cytiva.com/hyclonecerts.

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