



Certificate of Analysis

Fetal Bovine Serum (South America)

EU Approved

CAT.# : EU-000-500 : 500 mL

Quality Profile	Results
Apparence	Clear Yellow- Amber
Mycoplasma	None detected
Sterility	No microbial growth detected
pH	7.88
Osmolality	279 mOsm/kgH2O
Endotoxin	1.4 EU/ml
Haemoglobin	4.72 mg/L
Glucose	6,05 mmol/dl
Total protein	6.2 g/dl
Bovine IgG	11.29 mg/ml

Batch n°: XXXXXXXX

Adventitious viral agents:		
BHV-1 (CPE): PIV3 BRSV BVDV	Not detected Not detected Not detected Not detected	
Sera are tested by inoculation to permissive cells. The revelation is made by immunofluorescence for pestiviruses.		

BIOLOGICAL PERFORMANCE

Growth performance and possible cytotoxic characteristics are measured by passaging cells through three or more successive subcultures in medium supplement with the serum being tested, relative to an established control.

	SPECIFICATION	RESULTS
Groth promotion/cytotoxicity Cell line: L929 Mouse Fibroblast Hela/MRC-5	> 75% control	100% of control

Date processed: X Origin: B Expiry:

XXX Brazil Store between -20°C and -30°C Raw Batch number: XXXXXXX

FOR CELL CULTURE USE ONLY

Appoval:

Quality Assurance T. Mann

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Distributed by: Società Italiana Chimici Divisione scientifica r.l.

date:

Via Rio nell'Elba 140 - 00138 Rome - ITALY - *Phone:* +39 06 8818936 / 8800211 *Fax:* +39 06 8815319 *Web-Site:* www.sichim. com *E-mail:* info@sichim.com Manufactured by: Immunological Sciences - Unit 46, Unit Grange Science Park - Stairbridge Lane - Bolney - Sussex - RH17 5 **PB**



Fetal Bovine Serum

Catalogue n°: EU-000-500

Collected from the source :

When searchers choose their serum, an important factor that should be taken into consideration is the source, which also emphasises the traceability of the serum.

Our system of vertical integration allows us to be certain of the origin and traceability of our serum. Each manufactured batch is rigorously controlled, from the collection of serum and throughout all stages of its treatment and production through to final packaging on our premises.

Fetal Serum is derived from clotted whole blood collected from fetus via cardiac puncture.

The blood is centrifuged and the supernatant called "serum" is put in jugs before freezing.

The serum is collected or imported and treated in agreement with the European regulations.

Filtration :

Final Filter Size : 0.2µm

Sterility :

All sera are tested for the absence of aerobic and anaerobic bacteria, fungi, yeast and *Mycoplasma*. The sterility test is based on the European Pharmacopoeia requirements. The sera are tested for the absence of *Mycoplasma* by culture.

Virus Tested :

All of our sera are tested for:

- Bovine Viral Diarrhoea (BVD)
- Cytopathogenic agents e.g. Infectious Bovine Rhinotracheitis (IBR) / BHV-1
- Hemadsorbing agents e.g. Parainfluenza Virus Type 3 (PV1 3)

Sera are tested by inoculation to permissive cells. The revelation is made by immunofluorescence for pestiviruses. Cytopathogenic agents and hemadsorbing agents are detected by microscopic observations.

Endotoxin :

All sera are tested to determine the levels of endotoxins. Immunological Sciences carries out a chromokinetic quantitative test, according to the method D of the European Pharmacopoeia. The endotoxin reagent is standardized against the US reference endotoxin.

Haemoglobin :

The haemoglobin level is measured by spectrophotometer.

Osmolality :

Determined by a lowered freezing temperature. The osmometer is calibrated against standard solutions

Cell Culture :

Biological performance is assessed using cell culture medium supplemented with the serum being tested. During the test period, cultures are examined microscopically for any morphological abnormalities that may indicate toxic components in the serum.

Cell Lines Tested :

The following cell lines are tested with the serum:

HELA -Cancer Cell/Human. L929 -Fibroblast-Mouse MRC-5

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Total Protein : Determined by Biuret Colorimetry.

Country of Origin :

The country in which the serum was taken from the donor/animal: Brazil Immunological Sciences' sera are sourced from the following countries: Brazil, USA, New Zealand, Australia, Canada, France

Storage conditions :

Store at -20°C

Shelf life :

5 years

Recommended use :

- Respect storage conditions of the serum
- Do not use the serum after its expiry date
- Store serum in an area protected from light
- Manipulate serum in aseptic conditions (e.g. : under laminar air flow)

- Wear clothes adapted to the manipulation of serum to avoid contamination (e.g. : gloves, mask, hygiene cap, overall...)

- In order to preserve all serum qualities, it is recommended to thaw out the flask, to aliquote, then to re-freeze the produced flasks rather than to thaw out and re-freeze the flask at each use.

- It is recommended to use the serum immediately after its thaw out. However, if it is not useful, it is possible to store thaw out serum, at $+2^{\circ}C$ / $+8^{\circ}C$, until 26 weeks without significant decrease of its performances in cell culture.

The product is intended to be used in vitro, in laboratory only. Do not use it in therapy, human or veterinary applications.

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