

## Product Information

### Fetal Bovine Serum Advanced

#### Product Description

Serum is the blood component obtained after coagulation and removal of cellular components. Besides serum proteins it contains growth factors, amino acids and hormones, etc. This comprehensive mix makes serum one of the most important supplements for supporting cell growth and proliferation *in vitro* cell culture. Of special interest is fetal bovine serum (FBS). It is especially rich in growth factors and low in antibodies, which may influence the cell culture work.

Raw FBS is a natural product obtained from bovine blood showing significant batch variations due to various environmental influences e.g. nutrition or health state of animals. Batch-to-batch variations of FBS can have major impacts on the reproducibility of scientific results. Capricorn Scientific's sophisticated treatment during pooling and filtering significantly reduces batch-to-batch variation in FBS Advanced. Once successfully tested on a cell line, usually no further batch testing is necessary.

#### Applications

- Scientific research
- Calibration assays
- Fermentation
- Stabilizer in Diagnostic Assays

#### Features

- Minimized batch-to-batch variation
- No further batch reservation necessary
- No synthetic additives
- Suitable for a great variety of cell lines

Product	Origin	Treatment	Volume	Cat. No.
Fetal Bovine Serum Advanced	Collected in South America	-	100 ml	FBS-11B
			500 ml	FBS-11A
		Heat Inactivated	100 ml	FBS-HI-11B
			500 ml	FBS-HI-11A

#### Product Specifications

pH	6.8 – 8.2
Osmolality	240 – 340 mOsm/kg
Endotoxin	As reported
Total Protein	3.0 – 4.5 g/dl
Albumin	As reported
Hemoglobin	≤ 20 mg/dl
Mycoplasma	Not detected
Virus tested for	PI-3, BVDV, BHV-I
Sterility	Tested
Storage	Store at ≤-15°C

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#### Heat Inactivation

Capricorn Scientific offers also heat inactivated FBS Advanced. Heat inactivation inactivates the complement system, antibodies and other active enzymes. This must be done in a carefully controlled process in order to maintain the cell growth promoting properties of the serum and to reduce the formation of unwanted precipitates.

The process involves heating the serum in a shaking water bath at exactly +56°C for 30 minutes. Shaking helps to prevent the formation of protein and other forms of precipitates. After 30 minutes the serum must be cooled to room temperature as quickly as possible to avoid an over-exposure to heat which can damage growth factors and vitamins, etc.

#### Quality Control

Only serum batches which pass our strict quality control are released for sale. Standard parameters which are determined include pH, osmolality, content of protein, albumin, IgG and hemoglobin, endotoxin level, sterility, mycoplasma detection and virus testing.

#### Precautions and Disclaimer

This product is for research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### Help needed?

If you have any further questions regarding this product please do not hesitate to contact our cell culture experts:

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