

Neo FBS Bioprocess, US Origin
#Cat: NB-58-0141B Size: 100ml
#Cat: NB-58-0044 Size: 500ml
General Information

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

Neo FBS Bioprocess is a product of highest quality. Manufactured under the most stringent safety standards, it complies with all current directives and regulations that are essential for the use of bovine-derived products in biopharmaceutical or diagnostic industries.

Neo FBS Bioprocess is subject to strictest quality controls and is tested according to Title 9 of the Code of Federal Regulations (9CFR) and European Medical Agency (EMA). Due to these broad range test panels, we minimize any contamination risk for the biopharmaceutical manufacturing processes. For maximum inactivation of viral contaminants, additional treatment by gamma irradiation is possible. Comprehensive and detailed documentation of traceability and production process is available upon request.

Applications:

- Biopharmaceutical industry
- Vaccine production
- Manufacturing of recombinant antibodies and growth factors
- Advanced cell therapy products

| Product | Origin | Treatment | Volume | Cat. No. |
|-------------------------------|------------------|--------------------------|--------|-------------|
| Fetal Bovine Serum Bioprocess | Collected in USA | Tested according to 9CFR | 100 ml | NB-58-0141B |
| | | | 500 ml | NB-58-0044 |

Product Specifications

| | |
|-------------------------------|--|
| Appearance | Clear amber liquid |
| Virus tested for | Parainfluenza Type 3 (PI-3), Bovine Virus Diarrhoea Virus (BVD-V), Bovine Herpes Virus Type 1 (BHV-1), Blue Tongue Virus (BTV), Bovine Adenovirus (BAV), Bovine Reovirus (BRV), Bovine Parvovirus (BPV), Bovine Respiratory Syncytial Virus (BRSV), Rabies Virus |
| Storage and shelf life | Store at $\leq -15^{\circ}\text{C}$. Avoid repeated freeze-thaw cycles. Preparation of aliquots recommended. Once opened store at 4°C and use within 4-6 weeks. |
| Shipping conditions | Frozen (Dry ice) |
| Thawing | Overnight at $+2^{\circ}\text{C}$ to $+8^{\circ}\text{C}$. Swirl gently to homogenize. |

Additional Optional Treatments

Heat Inactivation:

Neo-Biotech also offers heat-inactivated FBS. This process inactivates the complement system, antibodies, and other active enzymes. Heat Inactivation must be done in a carefully controlled process to maintain the cell growth-promoting properties of 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 is cooled back down to room temperature as quickly as possible to avoid an over-exposure to heat which can damage growth factors and vitamins, etc.

Gamma Irradiation:

Neo-Biotech has established process parameters and controls for maximum inactivation of contaminants by an innovative gamma irradiation process in small sized boxes at 25 – 35 kGy. When FBS bottles are arranged in a pallet during gamma irradiation, high irradiation doses (58 kGy) are necessary to irradiate the centrally located bottles with the required does (>30 kGy). This and the associated higher temperatures may affect the serum quality. If the irradiation is performed in single boxes, the maximum dose of irradiation does not exceed 38.7 kGy. Gentle irradiation as used by Neo-Biotech is less likely to affect final serum quality.

Quality Control

Only serum batches which pass our strict quality control are released for sale. Standard parameters that 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 by email (info@neo-biotech.com) or phone (+33 9 77 40 09 09).