



## FOETAL BOVINE SERUM FAQs

- **What is the difference between Foetal Bovine Serum (FBS) and Foetal Calf Serum (FCS)?**  
They are the same and describe exactly the same serum product.
- **My FBS contains precipitates. What are they and what should I do?**  
The precipitates contain fibrin (clot forming protein) and lipoproteins. This is a normal characteristic and will not affect product performance. To remove the precipitates, centrifuge the serum or simply let it settle to the bottom of the bottle and transfer the serum carefully to another sterile bottle.
- **My FBS arrive partially thawed, what should I do?**  
Let the serum defrost completely, swirl the serum bottle gently and then re-freeze the serum. The quality of the serum will not have been affected.
- **How do I heat-inactivate serum?**  
Serum heat-inactivation is performed in a waterbath at 56°C for 30 minutes. The water level should be higher than the level of the serum. Monitor the temperature in a reference bottle containing water at the same volume during the heat inactivation. You must swirl the bottles to mix the serum every 5 minutes during heat inactivation to insure uniform heating. Use a calibrated thermometer only!
- **I have a jellylike fraction on the bottom of the bottle. What is it?**  
As a result of improper heat inactivation of the serum (temperature above 56°C, more than 30 minutes), or inactivation without mixing the serum, a protein denaturation caused the jellylike fraction on the bottom of the bottle. Do not use this serum.
- **How should I thaw FBS?**  
We recommend thawing the serum at 2-8°C. However, if necessary, you may thaw the serum at room temperature. Swirl the bottles gently to mix the serum during the thawing process.
- **Why is the color of the FBS not exactly the same as with my previous lot?**  
The color of FBS is brown to brown-red. It is dependent mainly on the hemoglobin concentration in the specific lot. The color does not affect the FBS performance.
- **Is the FBS raw material free of BSE?**  
FBS sold by Biological Industries has always been produced from raw materials originating from countries that are free of BSE according to the OIE (Office International des Epizooties).
- **How can I be certain regarding the country of origin of the raw material that was used to manufacture sterile FBS?**  
Ask Life Technologies for a copy of the original raw material veterinary documents.

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