

New Born Calf Serum

Origin: New Zealand
Sterile filtered

Product Code: RM10936

Product Description:

New Born Calf Serum is processed from calves that are 3-10 days old. It contains higher levels of proteins and immunoglobulins and less growth factors than Fetal Bovine Serum (FBS). It is a cost effective alternative to FBS and can be used for culturing most mammalian cell lines. It has proved to be an efficient growth promoter in 3T3 cells (mouse fibroblasts).

Applications:

- Cost effective alternative to FBS.
- In fermentation industries where large quantity of serum is required.
- As an internal reference standard for quantitative protein assays such as double radial immuno-diffusion assay, ELISA, Western immunoblotting, electro-immuno-diffusion.
- As a blocking agent or as a negative control in non-precipitating antibody-binding assays.
- As a reference serum in nephelometry and other automated precipitation techniques.

Directions for Thawing of Serum:

Thawing of the sera should be done as quickly as possible in order to minimize the period of time during which elevated salt concentration prevail in the thawed liquid.

1. Remove the bottles from the freezer and allow them to acclimatize at room temperature for about 10 minutes and keep in 2-8°C overnight in refrigerator.

Note: Do not place the serum in the water bath or incubator. Avoid exposing serum to elevated temperatures as this can lead to degradation of heat labile nutrients.

2. Swirl the bottle of serum frequently during thawing to disperse released salts and proteins uniformly in the liquid.

Note on Cryoprecipitate:

We advise our users to follow the recommended thawing procedure. Proper thawing with periodic agitation is crucial to a serum's optimum performance. If bottle of serum is not frequently swirled during thawing, the released proteins and salts tend to form crystalline or flocculent precipitates. These cryoprecipitates are not detrimental to the performance of serum but might affect serum's appearance and consistency. Slight turbidity or small amount of flocculent material is normal in most serum products and will not affect its performance in any manner. Filtering serum to remove cryoprecipitate is not recommended and could result in loss of nutrients.

Quality Control:

Physical and Chemical analysis:

Appearance	: Clear straw to amber liquid
pH	: 6.8 - 8.2
Osmolality	: 260 - 340 mOsm/Kg H ₂ O
Endotoxin	: Value EU/ml
Hemoglobin	: Value mg/dl

Protein:

Total protein	: 4.5 - 6.5 g/dl
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Sterility Testing:

Aerobic bacteria	: Not detected
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Fungi	: Not detected
Mycoplasma	: Not detected

Virus testing:

Bovine Virus Diarrhea Virus (BVD-V)	: Not detected
Infectious Bovine Rhinotracheitis	: Not detected
Parainfluenza Type 3 (PI-3)	: Not detected

Growth promotion and cytotoxicity:

Each lot of serum is tested for growth promotion and cytotoxicity. Growth promotion ability of serum is assessed by supplementing medium with 10% serum and analyzing the cell lines qualitatively for morphology and quantitatively by estimating cell counts.

Storage and Shelf Life:

Store at -10°C to -40°C away from bright light.

Shelf life of the product is 5 years.

Thawed serum can be stored at 2- 8°C up to four weeks.

Multiple freeze thaw cycles should be avoided.

Serum should never be stored in frost free freezers.

Frost free appliance undergoes intermittent warming cycles to prevent ice deposits and this might lead to multiple thawing of serum.

To avoid multiple freeze thaw cycles or long periods of refrigeration, we recommend freezing small aliquots which can be thawed and used as required.

Use before expiry date given on the label.

Disclaimer:

Revision No.: 02/2024

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