
Adult Bovine Serum

Origin: New Zealand
Heat Inactivated
Sterile Filtered

Product Code: RM10913

Product Description:

Adult bovine serum (ABS) is collected from adult cows brought to slaughter. The serum is separated from the blood of adult cows more than 12 months old by mechanical defibrination process. It contains more immunoglobulins than FBS and has double the protein content than FBS. ABS has low hemoglobin content. ABS is commonly used to supplement basal cell culture media to boost the growth and proliferation of multiple cell types. ABS is not recommended for hybridomas, embryonic stem cells and other fastidious cell types.

RM10913 is heat inactivated adult bovine serum. Heat inactivation is done to destroy heat labile components such as complement that can lead to complement mediated cell lysis. Complement proteins, antibodies and enzymes present in the serum are inactivated by heat inactivation.

Applications of Heat inactivated Serum:

- Suitable for immunoassays, enzyme assays and cytotoxicity assays
- For culture of insect cells

Note: Heat inactivation process can be detrimental to the growth promoting capacity of serum. When heat inactivation of serum is done, along with the complement certain amino acids, vitamins and growth factors are subjected to temperatures that could cause degradation. Hence it is recommended that researcher should experimentally determine and document the reasons for using heat inactivated serum.

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 10 minutes and keep at 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 the 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:

pH	: 6.8 - 8.2
Osmolality	: 260 – 340 mOsm/KgH ₂ O
Endotoxin	: Value EU/ml
Hemoglobin	: Value mg/dl
Identity	: Typical

Protein:

Total protein	: 7.00 - 8.80 g/dl
Albumin	: value g/dl
α-Globulin	: value g/dl
β-Globulin	: value g/dl
γ-Globulin	: value g/dl

Sterility Testing:

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

Virus testing:

Bovine Virus Diarrhea Virus : Not detected

(BVD-V)

Bovine Herpes Virus 1 (BHV-1)	: Not detected
Parainfluenza Type 3 (PI-3)	: Not detected

Antibody testing:

BVD-1 Antibody titer	: Value
BVD-2 Antibody titer	: Value

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 through minimum three subcultures.

Storage and Shelf Life:

Store at -10°C to -40°C away from bright light. Shelf life of the product is 48 months. 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.

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Disclaimer

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