



PRODUCT SPECIFICATION SHEET

Horse Serum (100 ml per vial) (MS137)

Intended Use

Horse serum is used for isolation and cultivation of *Mycoplasma* or *Trichomonas* or *Streptococcus* species.

Product Description:

The media supplement (MS137) is horse serum collected from controlled donor herds that receive regular veterinary inspection and care. It is a cost effective alternative to fetal bovine serum and supports growth of most mammalian cells. However, its usage in insect cell culture is not common. The protein content in Horse serum is twice as compared to fetal bovine serum but is low in many trace elements that are required for optimal growth. When using horse serum, supplementing the basal medium with these trace elements can optimize the growth and count of cells. Horse serum also contains certain additional growth factors than other animal sera. For certain hematopoietic cells like myeloid cells most of the necessary growth promoting factors are supplied only by horse serum. Therefore horse serum is the ideal supplement in nutrient media used for in vitro growth of specific hematopoietic progenitors.

Applications

- It is cost effective alternative to FBS.
- Ideal supplement in nutrient media used for in vitro growth of specific hematopoietic progenitor stem cells.
- Primary neuronal culture.
- Used as a supplement in growth and detection media for *Mycoplasma* spp

Horse Serum (MS137) is gamma irradiated with 25-35kGy dose. This process involves exposing the serum to high energy gamma radiations released by radioisotopes such as Cobalt-60. Gamma irradiation is the preferred option of the regulators to minimize the risk of viruses in animal-origin material. Gamma irradiation further reduces or eliminates wide range of viruses and mycoplasmas, which may be present in the serum after filtration, thus enhancing biological safety of the serum.

Quality Control

Physical and Chemical analysis	
Appearance	Amber liquid
pH	6.5 - 8.5
Osmolality	280 - 340mOsm/KgH ₂ O
Endotoxin	<0.125 EU/ml
Hemoglobin	< 15mg/dl
Protein	
Total protein	NMT 8.0g/d
Albumin	NMT 4.5g/dl
α-Globulin	value g/dl
β-Globulin	value g/dl
Sterility Testing (By European Pharmacopoeia)	
Aerobic bacteria	Not detected
Anaerobic bacteria	Not detected
Fungi	Not detected
Mycoplasma	Not detected





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Virus testing	
Equine Infectious Anemia	Not detected

Directions (for Thawing of Serum)

The process of thawing the sera should be done as quickly as possible so as to minimize the time period 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 or overnight in refrigerator.
2. Place the bottles at 37°C in a water bath or incubator.
Note: If placed in water bath ensure that the bottles do not float in water. Avoid exposing serum to elevated temperatures as this can lead to degradation of heat labile nutrients.
3. Frequent agitation of the bottle of serum is required during thawing to disperse released salts and proteins uniformly in the liquid.
4. Swirl the bottle occasionally while working at room temperature in order to ensure that the liquid remains homogenous.

Note on Cryoprecipitate

1. We advise users to follow the recommended thawing procedure. For optimum performance, proper thawing with periodic agitation is crucial to a serum's. If bottle of serum is not frequently swirled during thawing, the released proteins and salts tend to form crystalline or flocculent precipitates.
2. Though, these cryo-precipitates are not detrimental to the performance of serum but affect serum's appearance and consistency.
3. Even if the serum is thawed using the recommended procedure, a slight turbidity or small amounts of flocculent material may be observed. This is normal in most serum products and will not affect its performance in any manner.
4. If the serum is not thawed properly, larger amounts of cryoprecipitate will form which is often insoluble. Filtering serum to remove cryoprecipitate is not recommended and could result in loss of nutrients.

Storage and Shelf Life

1. Store at -10°C to -40°C away from bright light.
2. Shelf life of the product is 48 months.
3. Thawed serum can be stored at 2-8°C up to eight weeks.
4. Multiple freeze thaw cycles should be avoided.
5. 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.
6. To avoid multiple free 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.

Further Information

For further information please contact your local MICROMASTER Representative.





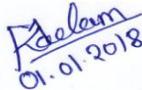
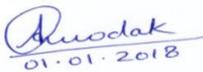
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