

# Product Information

## Enriched Calf Serum Optimized for CHO Sourced in Australia/New Zealand gamma irradiated by SER-TAIN™ Process

CATALOG NO. 13047C

### Description

Enriched Calf Serum is a medium supplement that is effective as a Fetal Bovine Serum (FBS) substitute for many cell culture applications, especially CHO. Enriched Calf Serum contains Australian-sourced Bovine Calf Serum (BCS) supplemented with proteins that promote nutrient transport, cell attachment and cell growth.

CHO cells grown in standard serum-supplemented media can be transferred directly into medium supplemented with Enriched Calf Serum with no adaptation, loss of cell yield, decreased viability or morphological changes.

This product formulation contains material derived from whole bovine blood collected in Australia and New Zealand. The serum is not collected from cattle born, raised, shipped through or slaughtered in countries where Bovine Spongiform Encephalopathy (BSE) is known to exist. All other components in this product formulation are produced through microbial fermentation, plant extraction, obtained by chemical synthesis or mined. A Certificate of Analysis indicating the country of origin is available for each lot of serum.

Manufacture of proteins from cell culture systems utilizing products of animal origin is a major regulatory focus. Enriched Calf Serum that is gamma irradiated via SAFC Biosciences' validated SER-TAIN™ process minimizes the risks associated with the use of animal-derived components and offers protection against low levels of microbial contaminants. Although all SAFC Biosciences' serum is thoroughly tested according to current 9CFR guidelines, serum may contain undetectable levels of adventitious agents. SER-TAIN™ gamma irradiation has been shown to

inactivate up to six logs of many biological contaminants in serum while maintaining growth promotion potential, providing added confidence in the quality and performance of your serum. SAFC Biosciences' standard gamma irradiation of serum includes exposure under controlled conditions to a Cobalt<sup>60</sup> source with a delivered dose of 25 - 35 kGy.

### Formulation

The formulation for Enriched Calf Serum is proprietary to SAFC Biosciences. For additional information please contact our Technical Services department.

### Precautions

This product is for further manufacturing use. THIS PRODUCT IS NOT INTENDED FOR HUMAN OR THERAPEUTIC USE.

### Storage

Store Enriched Calf Serum at -10 to -40 C. Do not use after the expiration date.

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## Preparation Instructions

### Thawing

1. Remove the supplement bottles from the freezer and allow them to acclimate to room temperature for approximately 10 minutes.
2. Place each container in a 30 to 37 C water bath or incubator. Excessive temperatures will degrade heat labile nutrients. If using a water bath, prevent the bottle caps from being completely submerged.
3. Gently swirl or shake the bottles every 10 - 15 minutes until the serum is completely thawed.
4. After thawing, use the supplement promptly. Liquid supplement may be stored refrigerated (2 to 8 C) up to four weeks. To avoid thaw/freeze cycles or long periods of refrigeration, it is recommended that any unused supplement be immediately dispensed into small, useful aliquots and refrozen for future use.

Periodic agitation is crucial for optimum performance. If a bottle is not periodically shaken or swirled as it thaws, gradients containing high concentrations of salts, proteins and lipids will form throughout the liquid portion and lead to the formation of crystalline or flocculent precipitates. These cryoprecipitates are not toxic to cell cultures, but they affect the appearance and consistency of each bottle.

Small amounts of cryoprecipitates are not uncommon, and will not affect product performance. Gently warming and mixing the supplement will generally allow the material to go back into solution.

## Characteristics

### Adventitious Viral Agents (AVA) (EMEA/CPMP/1793/02) (meets and exceeds 9CFR 113.53)

None detected

### Endotoxin

≤ 10.0 EU/mL

### Mycoplasma (EP)

None detected

### Sterility (Current USP and EP)

No microbial growth detected

#### Warranty, Limitation of Remedies

SAFC Biosciences warrants to the purchaser for a period of one year from date of delivery that this product conforms to its specifications. Other terms and conditions of this warranty are contained in SAFC Biosciences' written warranty, a copy of which is available upon request. ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED. In no case will SAFC Biosciences be liable for any special, incidental, or consequential damages arising out of this product or the use of this product by the customer or any third party based upon breach of warranty, breach of contract, negligence, strict tort, or any other legal theory. SAFC Biosciences expressly disclaims any warranty against claims by any third party by way of infringement or the like. THIS PRODUCT IS INTENDED FOR PURPOSES DESCRIBED ONLY AND IS NOT INTENDED FOR ANY HUMAN OR THERAPEUTIC USE.

Additional Terms and Conditions are contained in the product Catalog, a copy of which is available upon request.

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Issued December 2006 P13047  
0504 0805 0905 0406 0906

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