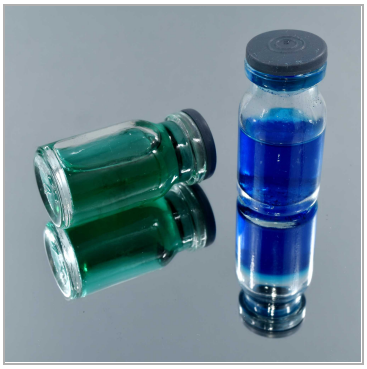

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OPEN ACCESS

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Protocol status: Working
We use this protocol and it's working

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FBS heat inactivation

Andreas Sagen[1]

[1]University of Oslo

Andreas Sagen
University of Oslo, The National Institute of Occupational H...

ABSTRACT

The objective of heat inactivation is to destroy complement activity in the serum without affecting the growth-promoting characteristics of the product. Removal of complement activity from serum, such as fetal bovine serum, is not required for most cell cultures but may be necessary for cultures that are sensitive to the complement activity. Since heat inactivation of the serum may, to some extent, decrease the growth performance properties of the serum, this procedure should only be performed if required for optimal cell growth. Researchers should evaluate the applicability of heat inactivation regarding their own application.

GUIDELINES

Do not use heat inactivated FBS unless necessary.

MATERIALS

Circulating hot water bath
Timer
Thermometer
Ice bath

SAFETY WARNINGS

58 degrees Celsius is hot. Take care when working with these temperatures.

BEFORE START INSTRUCTIONS

Clean and sanitize everything

Inactivation

2d 3h 24m

1 Preparation

1d 0h 42m

1.1 Slow thaw FBS at 4 °C overnight 1d

1.2 Aliquot FBS into 50 mL or 100 mL units in a sterile environment 10m

1.3 Prepare an volumetrically equal blank container with distilled water 2m

1.4 Equalibriate FBS and distilled water for 00:30:00 at Room temperature 30m

2 Prepare a water bath 30m

2.1 Clean and add distilled water to an appropriate hight 20m

2.2 Set temperature to 58 °C 10m

3 FBS inactivation

3.1 Set FBS aliquots and distilled water blank into preheated water bath at 58 °C for 00:30:00 Use a thermometer to track temperature in distilled water blank, and start timer 35m

when temperature reach 56 °C. Agitate aliquots every 00:05:00 by mixing

3.2 Remove aliquots from heat bath, and place FBS On ice or 4 °C for 00:30:00 30m

3.3 Store aliquots at -20 °C