Document Number:	**SASoM/METHOD/005.v5**
Title:	**Preparation of Heat Inactivated FCS for Cell Culture**
Version:	**v5**
Author:	**Peter Mullen**

Effective from:	01/01/2021
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SOP History		
Number	Date	Reason for Change
v1	01/01/2013	Original
v2	01/01/2015	Update
V3	01/01/2017	Update
V4	01/01/2019	Update
V5	01/01/2021	Update

1.0 Purpose –
This SOP describes the current procedure for heat-inactivating Foetal Calf Serum (FCS) for cell culture use in Laboratory 248 at the St Andrews School of Medicine (SASoM).

2.0 Scope –
This SOP applies to the staff in the SASoM involved in cell culture work.

3.0 Responsibilities –
All staff involved in cell culture are responsible for ensuring that the methods are followed in accordance with this SOP.

All staff must have read and signed the relevant risk assessment documents before performing this procedure.

4.0 Procedure –
Autoclave 40 x 100ml glass bottles to aliquot the FCS after heat-inactivation.

Remove 2L (4 x 500ml) of FCS from freezer and thaw overnight at 4°C.

Transfer FCS to a pre-heated water bath at 37°C for 15 min.

Heat-inactivate the FCS by placing in a separate water bath (filled to a level covering the FCS in the bottles) at 56°C for 30 min, inverting the bottles three times after 15 mins to ensure contents have not settled.

Remove FCS from water bath and leave at room temperature to cool.

Aliquot out into sterile 100ml glass bottles (60ml per bottle), trying to avoid the sediment which is present at the bottom of each bottle.

Store in the -20°C freezer in the cell culture suite.

5.0 Personal protection –
A Howie coat must be worn at all times. Gloves as specified in the appropriate COSHH RA.

6.0 Spillages –
Always clean up any spills immediately after use, only you know what you have spilt and are aware of its hazard.

Spillages should be mopped up with paper towel, disinfected with 70% ethanol and finally washed with detergent.

7.0 Training -
All staff should complete an in house induction to the tissue culture area and be trained in sterile TC techniques before starting any TC work.

8.0 Related documents –

8.1 Risk assessments COSHH/004 and RA/BIOL/004

8.2 SOP SASoM/METHOD/002
Making up routine DMEM / RPMI Media (10% FCS) for Cell Culture

8.3 SOP SASoM/METHOD/007
Aliquoting TC supplements

9.0 Approval and sign off –

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