



**Document Number:** SASoM/METHOD/015.v5

**Title:** Preparation of Tamoxifen ( $2 \times 10^{-3} \text{M}$ ) stock solution

**Version:** v5

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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 preparation of a Tamoxifen stock solution in Laboratory 248 at the St Andrews School of Medicine (SASoM).

### 2.0 Scope –

This SOP applies to the staff in the SASoM involved with preparation of Tamoxifen stock solution.

### 3.0 Responsibilities –

All staff involved in stock preparation 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 –

Tamoxifen is purchased in powder form (Sigma; T5648) and kept in a cytotoxic cabinet at  $4^{\circ}\text{C}$ .

The molecular weight of Tamoxifen is 371.5kDa.



Tamoxifen should be made up as a  $2 \times 10^{-3} \text{M}$  stock solution and subsequently stored at  $-20^{\circ}\text{C}$  in a suitable freezer.

Weigh out 7.43 mg of Tamoxifen into a sterile glass vial <sup>(1)</sup> and add 10ml of absolute Ethanol. Mix thoroughly and make sure that the powder has all gone into solution.

Protect from light by covering the vial in Tin-Foil.

Label as ' $2 \times 10^{-3} \text{M}$  Tamoxifen' along with your initials, the date and an expiry date of 3 months <sup>(2)</sup>.

Place inside an airtight container and store upright in a suitable freezer at  $-20^{\circ}\text{C}$ . Make sure the box is labeled with appropriate hazard labels.

Use at a final concentration of  $1 \times 10^{-6} \text{M}$  by making a 1:2000 dilution in cell culture media (5µl per 10ml).

N.B.

<sup>(1)</sup> Tamoxifen Stock Solution must be made up in a glass vial although further serial dilutions can be made up in plastic universal containers.

<sup>(2)</sup> Tamoxifen Stock Solution should be made up fresh every 3 months.

## 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



## 9.0 Approval and sign off –

### Author:

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Position: Research Fellow

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### Management Approval:

Name: Peter Mullen

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