



**Document Number:** SASoM/EQUIP/015.v3

**Title:** Use and Maintenance of the Pressure Cooker for Antigen Retrieval

**Version:** v3

**Author:** Peter Mullen

Effective from:	15/02/2020
Valid to:	14/02/2025

SOP History		
Number	Date	Reason for Change
v1	01/01/2013	Original
V2	15/02/2015	Amendments to protocol
V3	15/02/2020	Quinquennial Update

### 1.0 Purpose –

The purpose of this SOP is to outline the principles and safety issues for the routine use and maintenance of the Pressure Cooker in Laboratory 248 at the St Andrews School of Medicine (SASoM).

### 2.0 Scope –

This SOP applies to routine use of the pressure cooker within the SASoM.

### 3.0 Responsibilities –

It is the responsibility of all users of the Pressure Cooker within the SASoM to comply with this SOP.



#### 4.0 Procedure –

A pressure cooker is sometimes used for antigen retrieval as it achieves temperatures higher than boiling. The pressure cooker used is designed for use within a microwave oven.

Place the antigen retrieval solution (approximately 750mL) into the pressure cooker, along with the glass slides held in a plastic slide holder.

Fit the grey sealing gasket into the groove at the top of the base unit – this will ensure an air-tight seal when the base and the lid are brought together. Place the lid onto base (by aligning the arrows) and then turn until the lid locks into position.

Place the pressure cooker into the microwave oven and heat until small yellow valve on lid of pressure cooker raises up indicating that solution inside is boiling. This usually takes 10 – 15 minutes, depending on volume inside pressure cooker.

Wearing heat resistant gloves carefully remove pressure cooker from microwave.

Gently remove the lid and place slides in plastic rack into retrieval solution within pressure cooker.

Replace the lid and lock as before, add the red rubber weight to the steam outlet on top of the pressure cooker and return to microwave.

Heat the pressure cooker in microwave for 5 minutes.

Using heat resistant gloves, carefully lift the pressure cooker from within the microwave and place in sink.

Place eye protection on. With the heat resistant gloves release the pressure by removing the weight from the top of the cooker. Stand well back immediately once the weight is removed. Do not stand over the pressure cooker during this step.

Once all the steam has been released, slowly and carefully remove the lid, add some cold water to sections and allow to cool for approximately 20 minutes.

Remove sections from pressure cooker when cool.

Continue with immunohistochemical protocol.

#### 5.0 Personal protection -

Howie coat must be worn at all times.

Safety glasses must be worn when handling the heated pressure cooker.

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 that chemicals hazard. Mop up spills with paper towels. Wash the site of spillage with water & detergent.

## 7.0 Maintenance -

Check that the seal is intact and in the correct position before use.

## 8.0 Training -

All users have to be trained before using the Instrument by a designated person.

## 9.0 Related documents –

9.1 Risk assessments – RA/GEN/006, RA/GEN/015 & COSHH/008

## 10.0 Approval and sign off –

### Author:

Name: Peter Mullen  
Position: Research Fellow  
Signature: Date:

### Management Approval:

Name: Peter Mullen  
Position: Research Fellow  
Signature: Date:

### QA release by:

Name: Alex MacLellan  
Position: QA Manager  
Signature: Date:

