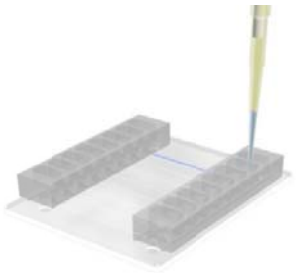
Cellix Ltd.,
Unit 1, Longmile Business Park,
Longmile Road,
Dublin 12, Ireland

Tel: +353-1-4500-155
Fax: +353-1-4500-158
URL: www.cellixltd.com
Email:info@cellixltd.com

Protocol to coat Channels of Vena8 Fluoro+ biochip with Collagen and to perform Thrombosis experiment using Venaflux Platform

Protocol for Coating Vena8 Fluoro+ Biochips

Step 1

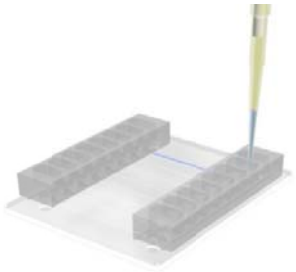


Vena8 Fluoro+ biochips are coated using a standard yellow tip pipette, by dispensing approximately 12µL of Fibrillar Collagen (200µg/mL, NYCOMED 1130630) into each channel. Note the excess of liquid on the entrance and exit ports.

Step 2

The biochip is then placed in a humidified box and incubated overnight at 4ºC.

Step 3



After the incubation period, add 10µL of 10% BSA into each channel to ensure specificity of binding during the adhesion assay. The biochip is kept in the humidified box for a further 15 minutes at room temperature.

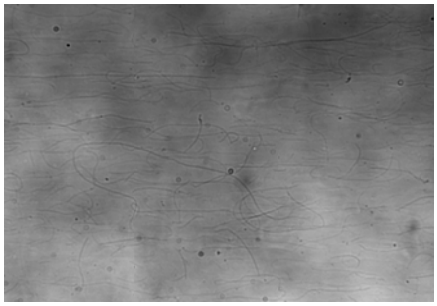


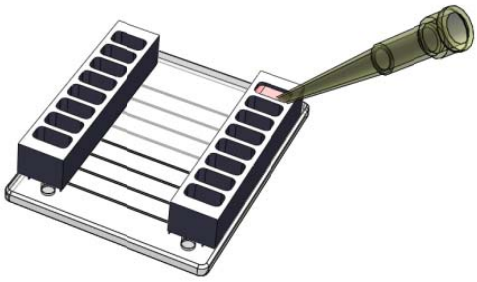
Image taken after overnight coating of Collagen (200µg/mL) in the channels of Vena8 Fluoro+ biochip (20Xmagnification)

Cellix Ltd.,
Unit 1, Longmile Business Park,
Longmile Road,
Dublin 12, Ireland

Tel: +353-1-4500-155
Fax: +353-1-4500-158
URL: www.cellixltd.com
Email:info@cellixltd.com

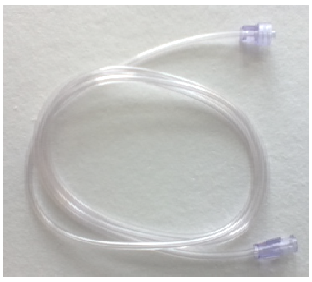
Protocol for perfusion of whole blood through the channels of biochip

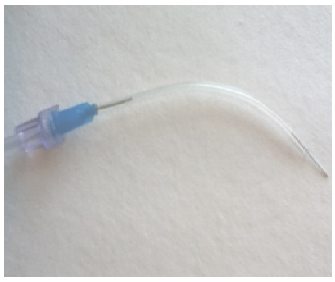
Step 1



Add 40µL of media into the reservoir of the biochip before connecting the cable

Step 2



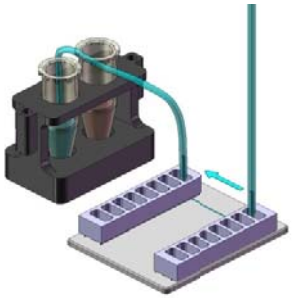


Connect one end of thrombosis cable(left image) to the output cable of the Mirus pump and the other end to the biochip inlet cable (right image).

Step 3

Dispense media through the output cable to form a drop of media at the tip of the biochip inlet cable. This is to avoid bubble formation while inserting the cable into the biochip channel.

Step 4

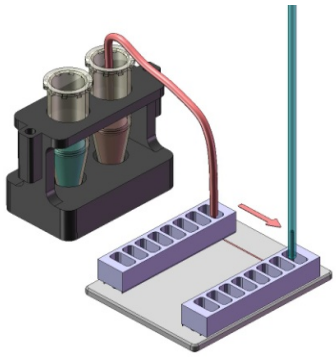


Gently insert the cable into the channel of the biochip. Wash the channel using Mirus pump. Collect the waste in an eppendorf tube.

Cellix Ltd.,
Unit 1, Longmile Business Park,
Longmile Road,
Dublin 12, Ireland

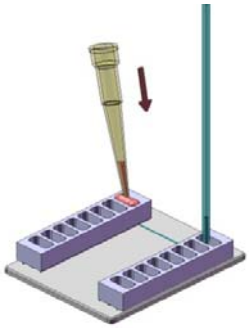
Tel: +353-1-4500-155
Fax: +353-1-4500-158
URL: www.cellixltd.com
Email:info@cellixltd.com

Step 5



Gently insert the cable into the channel of the biochip. Wash the channel using Mirus pump. Collect the waste in an eppendorf tube.

Step 6



Disconnect the tubing from the blood sample tube after infusion of blood. Add buffer e.g PBS (100µL) into the reservoir using a pippette and pull (aspirate) the buffer at appropriate shear stress using Mirus pump. This is to wash whole blood from the channel.