

## PRODUCT INFORMATION SHEET

### Mvein™ Restrainer for Mouse Tail Vein Injections

SKU# MV-001

#### Description

The head cone of the Mvein™ restrainer invites the mouse to insert their entire head willingly and easily. The head cone of Mvein will not pinch off the nose of the animal causing them to asphyxiate like traditional nose cone based restrainers.

The rectangular shape of the restrainer provides space for flank tumors in one of the upper corners, prevents the mouse from rolling and allows technicians to simply place the restrainer on its side so the lateral tail vein is in the desirable superior position for injection.

Mice ranging between 10-45 grams can be restrained for up to 60 minutes, as tested.

#### Product Handling

Only give the screws an additional 1/8 turn when slight resistance is felt upon tightening. Do not over-tighten the screws on the device. It is not necessary to over-tighten the screws on the device to keep the mouse immobilized.

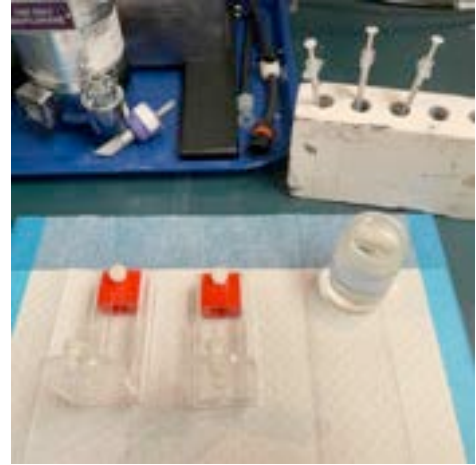
Only clean Mvein with soap and water. Do not autoclave or use harsh chemicals

#### Video of Tail Vein Injection with Mvein™

A video example of the procedure can be visualized on MediLumine's web site at <https://www.medilumine.com/mouse-tail-vein-injections-with-mvein-restrainer/>

#### Directions for Use

1. Prepare Mvein restrainers and a 100 ml bottle of luke warm water.



2. Load mouse head first into the restrainer. This is one of the advantages of Mvein since with other restrainers the mouse needs to be loaded in by the tail, which involves pulling on the mouse's tail.



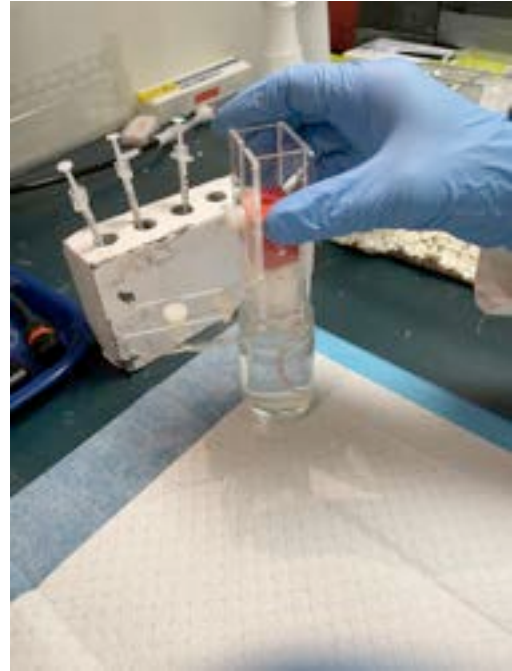
3. Close the cover so that the tail is placed through opening and loosely tighten the screws



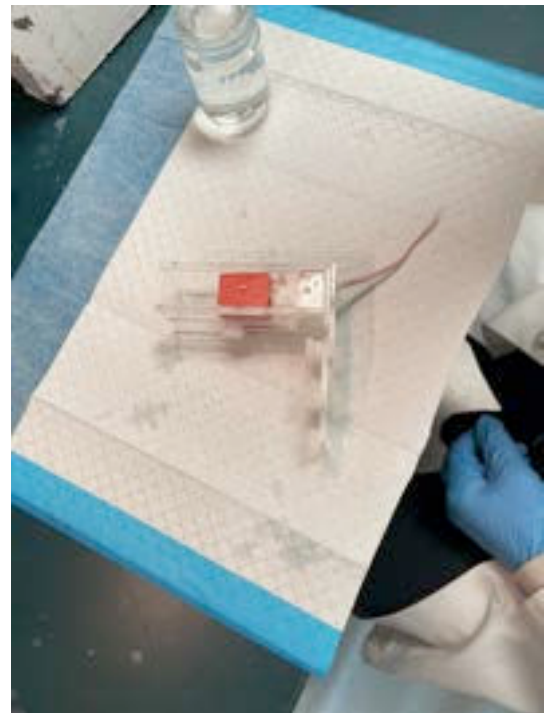
4. Immobilize the mouse in restrainer by adjusting position of head cone and loosely tightening the screws.



5. Warm the mouse's tail by placing the Mvein restrainer on the bottle.



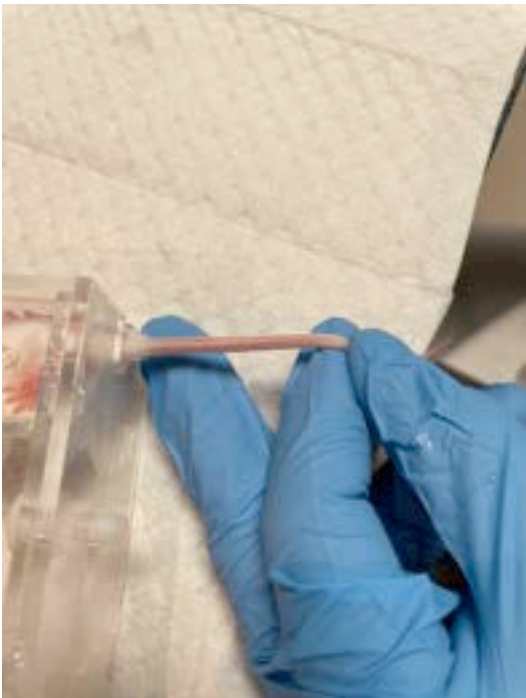
6. Rotate Mvein restrainer 90 degrees so that the tail is lifted in position for injection.



7. Prepare for insertion into tail vein by holding syringe in 'aloha' position with the bevel up. Use smaller syringes if necessary to fit in hand comfortably. Eg. cat# 324702 from VWR



8. Anchor hand on the restrainer and table while gently extending the mouse's tail in place.



9. Gently insert the needle into the mouse's lateral tail vein with the needle bevel up. The needle should easily slide up the vein without any resistance/back pressure when depressing the plunger vein with pinky.



### Important Considerations

The tail skin of C57BL/6 mice that are approximately 10 weeks of age becomes darker and it is more difficult to see the vessels. This can also be the case with sick, dehydrated or anemic mice.

It is important to note that the depth of the vein is slightly different at different locations on the tail.

It is recommended to be well rested and to limit coffee consumption before performing the procedure to avoid shaking during the injection. This is especially the case for experiments that require numerous tail vein injections.



## **Training Course**

MediLumine's offers an in person tail vein injection course to help master the procedure. Ref.

<https://www.medilumine.com/services/>

## **Tail Vein Injections as a Service**

MediLumine's offers a tail vein injection service for your larger studies. Our AALAS certified technician can perform the injections for you. We typically inject 100 to 200 mice per day. Ref. <https://www.medilumine.com/services>