May 23, 2023

Retro-orbital injection of AAV in mice

Forked from Retro-orbital injection of virus or dye in mice

DOI
dx.doi.org/10.17504/protocols.io.3byl4joy8lo5/v1

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Protocol Citation: Miguel Chuapoco 2023. Retro-orbital injection of AAV in mice. **protocols.io https://dx.doi.org/10.17504/protocols.io.3byl4joy8lo5/v1**

Protocol status: Working
We use this protocol and it's working

Created: May 10, 2023

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Protocol Integer ID: 81665

Keywords: Mice, Retro-orbital injections, ASAPCRN, orbital injection of aav, orbital injection, aav, mice this protocol, mice

Abstract

This protocol is following:

Citation

Tal Yardeni, Michael Eckhaus, H. Douglas Morris, Marjan Huizing, Shelley Hoogstraten-Miller (2011)
. Retro-orbital injections in mice. LabAnimal.

10.1038/laban0511-155 LINK

Guidelines

Please adhere to your institue IACUC guidelines of animal care.

Materials

MATERIALS

29G x 12.7mm 0.3ml syringe **Ulticare Catalog #**09230

STEP MATERIALS

29G x 12.7mm 0.3ml syringe **Ulticare Catalog #**09230

It is important that the needel used has low friction so that the injection is at a slow and consisitnat rate.

Troubleshooting

Injection

1 Prepare either virus dilution with PBS prepare. Injection is up to 100 µL per mouse.

2 Take one mouse from the cage into an induction chamber and start isoflurane at 3% with flow rate of ~1L/min

3 After the mouse has slow breathing (~1/s) move the mouse to a nose cone delivery of isoflurane at 1.5% with around the same flow rate.

4 Expose the eye ball with two fingers (above and below) and make sure the you are not pressing on the trachea and the mouse's breathing is regular.

5 Use a 31 G insulin syringe at a 30-degree angle beveled downwards until you hit the bone, retract a bit and slowly inject. See cited paper for more details.

Citation

Tal Yardeni, Michael Eckhaus, H. Douglas Morris, Marjan Huizing, Shelley Hoogstraten-Miller
(2011). Retro-orbital injections in mice. LabAnimal.

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Equipment

U-100 BD Ultra-Fine™ Short Insulin Syringes	NAME
Syringe and neecdle	TYPE
BD Medical	BRAND
BD328438	SKU
https://us.vwr.com/store/catalog/product.jsp?catalog_number=BD328438	LINK

6 Remove the needle slowly and press the eyelid shut for a few seconds.

7 Prior to recovery, apply 1-2 drops 0.5% ophthalmic Proparacaine to the injected eye

Citations

Tal Yardeni, Michael Eckhaus, H. Douglas Morris, Marjan Huizing, Shelley Hoogstraten-Miller. Retro-orbital injections in mice
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Step 5

Tal Yardeni, Michael Eckhaus, H. Douglas Morris, Marjan Huizing, Shelley Hoogstraten-Miller. Retro-orbital injections in mice
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