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Retro-orbital injection of AAV in mice



Forked from [Retro-orbital injection of AAV in mice](#)

DOI

<https://dx.doi.org/10.17504/protocols.io.bp2l6drpdvqe/v1>

Chelsie Steele¹, Yujie Fan¹

¹Caltech



Chelsie Steele

Caltech

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Protocol status: Working

We use this protocol and it's working

Created: January 07, 2025

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Aligning Science Across Parkinson's

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Abstract

This protocol is following:

Citation

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

[10.1038/labani0511-155](https://doi.org/10.1038/labani0511-155)

LINK

Guidelines

Please adhere to your institute 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 needle used has low friction so that the injection is at a slow and consistent rate.

Injection

- 1 Prepare virus dilution with sterile DPBS. Injection is 100 μ L per mouse.
- 2 Take one mouse from the cage into an induction chamber and start isoflurane at 3-5% with flow rate of 0.8-1L/min
- 3 After breathing rate of the mouse has slowed ($\sim$ 1/s), indicating sufficient anesthetic depth, you can begin working with the mouse
- 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. 

Equipment

U-100 BD Ultra-Fine™ Short Insulin Syringes

NAME

Syringe and needle

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 

