

Oct 18, 2023

# Optical densitometry of neuronal fibers

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[dx.doi.org/10.17504/protocols.io.8epv5x3nng1b/v1](https://dx.doi.org/10.17504/protocols.io.8epv5x3nng1b/v1)

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**Protocol Citation:** Miquel Vila 2023. Optical densitometry of neuronal fibers. **protocols.io**  
<https://dx.doi.org/10.17504/protocols.io.8epv5x3nng1b/v1>

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**Protocol status:** Working

**We use this protocol and it's working**

**Created:** October 18, 2023

**Last Modified:** November 20, 2023

**Protocol Integer ID:** 89505

**Keywords:** optical densitometry of striatal neuronal fiber, optical densitometry of neuronal fiber, striatal neuronal fiber, neuronal fiber, optical densitometry, rodent brain, brain

## Abstract

Optical densitometry of striatal neuronal fibers in the rodent brain

## Troubleshooting



- 1 Scan the immunostained serial coronal sections covering different caudorostral levels of the brain regions (for striatum, 4 sections/animal) with an Epson Perfection v750 Pro scanner.
- 2 Open the resulting images in ImageJ (RRID:SCR\_003070,<https://imagej.net/>).
- 3 With the free hand selections tool, draw the region of interest (e.g. striatum, nucleus accumbens and olfactory tubercle) and measure the optical density (pixel brightness). Then draw a region of interest in a blank area (e.g. cortex) and also measure the optical density.
- 4 Calculate the optical density or absorbance using the formula:  $-\log_{10} (\text{Striatum Intensity} / \text{Cortex Intensity})$ .