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Optical densitometry of neuronal fibers

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ABSTRACT

Optical densitometry of striatal neuronal fibers in the rodent brain





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- 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/).
- 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: -log10 (Striatum Intensity/Cortex Intensity).