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# Stereology

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1


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This protocol is used to quantify the number of TH+ cells in the substantia nigra pars compacta.

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- 1 Take 8 cryosections cut at 40µm to equally sample the substantia nigra, pars compacta (SNc)<sup>2d</sup> and perform diaminobenzidine staining with a tyrosine hydroxylase antibody.  
Note: I take every 6th section from Bregma -2.54mm to -3.88mm
- 2 Use StereoInvestigator software to count all TH+ cells. For this, randomly sample the SNc with<sup>1h</sup> a 150µm x 150µm grid and apply an optical fractionator consisting of a 75µm x 75µm square. Calculate the mean section thickness during counting with a frequency of 10 frames (~3 measurements per hemisphere).