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Version 2

Stedehouder, J. and Roberts, B.M. *et al.* (2024) Rapid modulation of striatal cholinergic interneurons and dopamine release by satellite astrocytes V.2

 [Nature Communications](#)

DOI

<https://dx.doi.org/10.17504/protocols.io.dm6gp3k25vzp/v2>

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Abstract

This collection contains eight protocols detailing methods used in Stedehouder, J., Roberts, B.M., Raina, S. et al. Rapid modulation of striatal cholinergic interneurons and dopamine release by satellite astrocytes. *Nat Commun* 15, 10017 (2024).



Files

 SEARCH

Protocol



NAME

Making Ca²⁺ - selective microelectrodes

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Immunofluorescent Labelling of Post-Mortem Rodent Brain Tissue

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Intracranial injections of viral vectors in mouse striatum

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Fast-scan cyclic voltammetry to assess dopamine release in ex vivo mouse brain slices while optogenetically activating astrocytes

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🔗 **GRAB Acetylcholine (ACh) sensor imaging in ex vivo mouse striatal slices**

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NAME

Imaging of cholinergic interneurons in post-mortem rodent tissue to identify striatal satellite astrocytes

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Immunofluorescence labelling and imaging of cholinergic interneurons in post-mortem human brain tissues

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NAME

Whole-cell Patch-Clamp Recordings from Striatal Cholinergic Interneurons in ex vivo Mouse Brain Slices

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Protocol references

Stedehouder, J., Roberts, B.M., Raina, S. et al. Rapid modulation of striatal cholinergic interneurons and dopamine release by satellite astrocytes. *Nat Commun* 15, 10017 (2024).