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LIVE IMAGING OF i³NEURONS (Support Protocol 5)

In 1 collection

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ABSTRACT

Live imaging permits visualization of molecular and organellar dynamics within the neuron. While a standard confocal microscope is sufficient for short imaging experiments, extended imaging applications (>1 hr) are best served by a 37 °C live imaging chamber outfitted onto the microscope. CM should also be changed to Hibernate A Low Fluorescence Medium (BrainBits LLC, [cat. no. SKU#HAPR](#)) for extended imaging.

ATTACHMENTS

[fernandopulle2018.pdf](#)

Protocol status: Working
We use this protocol and it's working

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mediated differentiation

GUIDELINES

Live imaging permits visualization of molecular and organellar dynamics within the neuron. While a standard confocal microscope is sufficient for short imaging experiments, extended imaging applications (>1 hr) are best served by a 37 °C live imaging chamber outfitted onto the microscope. CM should also be changed to Hibernate A Low Fluorescence Medium (BrainBits LLC, [cat. no. SKU#HAPR](#)) for extended imaging. Hibernate A permits long-term maintenance of neuronal cultures in ambient carbon dioxide levels (0.04 % vs. 5 % for standard cell culture incubators) and provides a better imaging environment by reducing autofluorescence from phenol red-containing medium. Finally, medium (either CM for short imaging or Hibernate A for extended imaging) should be supplemented with SOS neuronal supplement (Cell Guidance Systems, [M09-50](#)) instead of B27. SOS supplement does not contain phototoxic components present in B27 and other neuronal supplements. Imaging is best done on glass-bottom slides, such as Ibidi μ -slides (Ibidi, [cat. no. 80827](#)).

☒ Hibernate A Low Fluorescence **BrainBits Catalog #HALF**

☒ SOS® neuronal supplement **Contributed by users Catalog #M09-50**

☒ μ -Slide 8 Well Glass Bottom **Ibidi Catalog #80827**

SAFETY WARNINGS

Please see SDS (Safety Data Sheet) for hazards and safety warnings.