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Single-cell single-unit recordings in vitro

In 1 collection

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Abstract

Single units in slices

Single-cell single-unit recordings

1 The slice is placed in a submerged recording chamber in continuously flowing ACSF (34°C) saturated with O2/CO2 gas mixture (95/5%).

1.1 ACSF composition (in mM): 126 NaCl, 2.5 KCl,1.2 $MgCl_2$, 1.2 NaH2PO4, 2.4 CaCl2, 10 glucose and 25 NaHCO3.

2 A glass microelectrode filled with ACSF (tip resistance 5–10 MΩ) is slowly deepened into the slice, with voltage signals captured through an Axoclamp 2A amplifier using Clampex 10 software and digitized with a
Digidata 1440 (Molecular Devices, LLC., 3860 N First Street San Jose, CA 95134 USA).

3 When fast spontaneous transients are observed, the depth of the recording electrode is adjusted to obtain voltage signals as high as possible