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DATASHEET

aCSF Instant Powder (Mg^{2+}/Ca^{2+} free) (packets)

Product overview

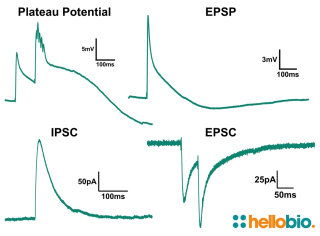
Name aCSF Instant Powder (Mg^{2+}/Ca^{2+} free) (packets)
Cat No HB16218
Biological description Artificial cerebrospinal fluid (aCSF) is a widely used buffer in electrophysiological experiments to sustain *ex-vivo* brain sections. This kit contains 20 instant powder packets. Simply add each packet to 1L of dH_2O, mix, add the desired concentration of Mg^{2+} and Ca^{2+} and bubble with carbogen to make 1L of aCSF at physiological pH. Please note: This formulation does not contain any Mg^{2+} or Ca^{2+} so that this can be specified by the experimenter.

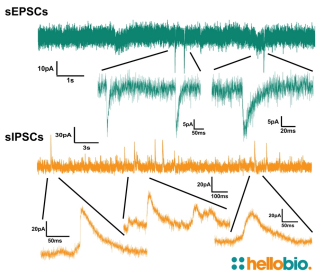
Key features:

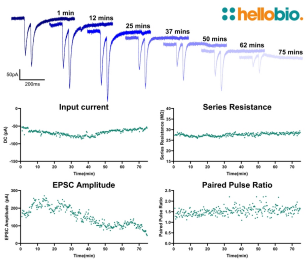
- Save time by using preformulated individual aCSF powder packets - each packet dissolves in seconds
- More reproducible with each pack's highly accurate formulation - less error for better data.
- Extensively validated in a range of patch clamp electrophysiology experiments.
- Does not contain Mg^{2+} or Ca^{2+} to allow manipulation by the experimenter. For complete aCSF containing Mg^{2+} and Ca^{2+} please see HB9200 aCSF Instant Powder (packets)

Contains (in mM): NaCl 124. Glucose 10, $NaHCO_3$ 24, KCl 3, NaH_2PO_4 1.25
Biological action Buffer
Description Preformulated instant powder packets to make artificial cerebrospinal fluid (aCSF) without Mg^{2+} or Ca^{2+}

Images







Solubility & Handling

Storage instructions RT. Add each packet to 1L dH_2O.
Handling Add the contents of each packet to 1000ml of deionised water, mix well, add desired Mg^{2+} and Ca^{2+} and bubble with carbogen (10-15 minutes) to make 1L of aCSF at physiological pH. Warm to 37°C before use.

Use immediately once opened.
Important This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

Chemical Data

Kit contents	Preformulated packets. Each makes 1L of aCSF.
pH after carbogenation	7.2
pH before carbogenation	7.5

References

Reduced expression of the psychiatric risk gene DLG2 (PSD93) impairs hippocampal synaptic integration and plasticity.

Griesius S et al (2022) Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology 47

PubMedID 35115661

The development of synaptic plasticity induction rules and the requirement for postsynaptic spikes in rat hippocampal CA1 pyramidal neurones.

Buchanan KA et al (2007) The Journal of physiology 585

PubMedID 17932146