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DATASHEET

aCSF Instant Powder (Mg²⁺/Ca²⁺ free) (packets)

Product overview

Name Cat No Biological description

aCSF Instant Powder (Mg²⁺/Ca²⁺ free) (packets) HB16218

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 dissolve the contents of each packet in dH₂O to a final volume of 1L, mix, add the desired concentration of Mg²⁺ and Ca²⁺ and bubble with carbogen to make 1L of aCSF at physiological pH. Please note: This formulation does not contain any Mg²⁺ or Ca²⁺ so that this can be specified by the experimenter.

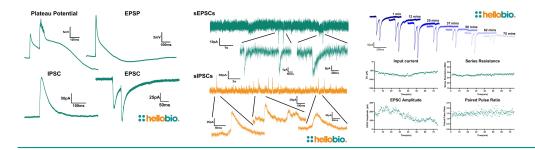
Key features:

- 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 Mg²⁺ or Ca²⁺ to allow manipulation by the experimenter. For complete aCSF containing Mg²⁺ and Ca²⁺ please see HB9200 aCSF Instant Powder (packets)

Biological action Description Contains (in mM): NaCl 124. Glucose 10, NaHCO $_3$ 24, KCl 3, NaH $_2$ PO $_4$ 1.25 Ruffer

Preformulated instant powder packets to make artificial cerebrospinal fluid (aCSF) without ${\rm Mg^{2+}}$ or ${\rm Ca^{2+}}$

Images



Solubility & Handling

Storage instructions Handling

RT. Dissolve each pack in dH₂O to 1L final volume.

Dissolve the contents of each packet in dH_2O , add the desired quantity of Mg^{2+} and Ca^{2+} then bring the final volume to 1000ml 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

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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