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# DATASHEET

## aCSF Instant Powder (packets)

### Product overview

<b>Name</b>	aCSF Instant Powder (packets)
<b>Cat No</b>	HB9200
<b>Biological description</b>	Artificial cerebrospinal fluid (aCSF) is a widely used buffer in electrophysiological experiments to sustain <i>ex-vivo</i> brain sections. This kit contains 20 instant powder packets. Simply dissolve the contents of each packet in dH <sub>2</sub> O to a final volume of 1L, mix and bubble with carbogen to make 1L of aCSF at physiological pH.

Key features:

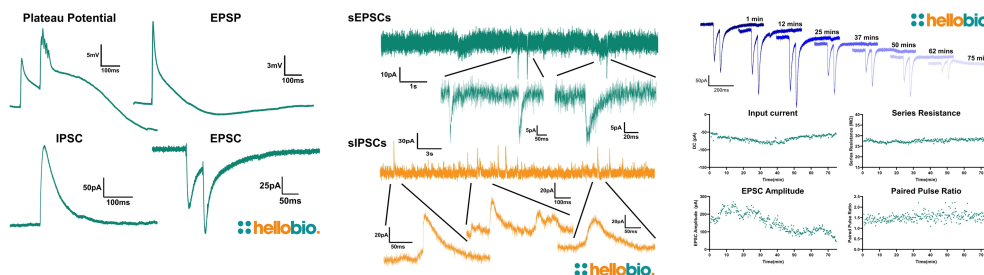
- Save time by using preformulated individual aCSF powder packets - each packet dissolves in seconds and there's no need to add Mg<sup>2+</sup> or Ca<sup>2+</sup>
- More reproducible with each pack's highly accurate formulation - less error for better data.
- Extensively validated in a range of patch clamp electrophysiology experiments.

Contains (in mM): NaCl 124. Glucose 10, NaHCO<sub>3</sub> 24, KCl 3, NaH<sub>2</sub>PO<sub>4</sub> 1.25, CaCl<sub>2</sub> 2.5, MgCl<sub>2</sub> 1.3

<b>Biological action</b>	Buffer
<b>Customer comments</b>	<i>Amazing. We were having issues getting consistency with our 2-photon slice imaging and ultimately it must have been the osmolarity of our previous aCSF that we were making because the minute we switched to Hello Bio, our results just got better. Honestly, so so worth it!! And really easy and straightforward. I love this product. <b>Verified customer, MIT</b></i>

<b>Description</b>	Preformulated instant powder packets to make artificial cerebrospinal fluid (aCSF)
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### Images





## Solubility & Handling

<b>Storage instructions</b>	RT. Add each packet to 1L dH <sub>2</sub> O.
<b>Handling</b>	<p>Dissolve the contents of each packet in dH<sub>2</sub>O to a final volume of 1000ml, mix well and bubble with carbogen (10-15 minutes) to make 1L of aCSF at physiological pH. Warm to 37°C before use.</p> <p>Use immediately once opened.</p>
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use

## Chemical Data

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

## References

### 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](#)

### 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](#)