

## ARTIFICIAL CEREBRAL SPINAL FLUID FOR RODENTS (SOP-40)

### ACSF FOR USE WITH AGAROSE (Modified from Kleinfeld and Delaney)

	<u>MW</u>	<u>g/L</u>
142 mM NaCl	58.5 g/M	8.30 g/L
5 mM KCl	74.6 g/M	0.370 g/L
10 mM Glucose	180 g/M	1.80 g/L
10 mM Hepes, Na Salt	260 g/M	2.60 g/L

Adjust pH to 7.4

3.1 mM Ca <sup>2+</sup> Stock	3.1 ml of 1M
1.3 mM Mg <sup>2+</sup> Stock	1.3 ml of 1M

Bring total volume to 1000 ml

### ACSF (LLINAS IN VITRO PERFUSION)

	<u>MW</u>	<u>g/L</u>
121 mM NaCl	58.5 g/M	7.07 g/L
5 mM KCl	74.6 g/M	0.37 g/L
26 mM NaHCO <sub>3</sub>	84.0 g/M	2.18 g/L
1.2 mM NaH <sub>2</sub> PO <sub>4</sub> . 2H <sub>2</sub> O	160 g/M	0.19 g/L
10 mM Glucose	180 g/M	1.80 g/L
5 mM Hepes, Na Salt	260 g/M	1.30 g/L

Adjust pH to 7.4

2.4 mM Ca <sup>2+</sup> Stock	2.4 ml of 1M
1.3 mM Mg <sup>2+</sup> Stock	1.3 ml of 1M

Bring total volume to 1 liter.

	<u>Concentration</u>	<u>MW</u>	<u>g/L</u>
<u>Mg<sup>++</sup> stock:</u>			
MgCl <sub>2</sub> . 6H <sub>2</sub> O	0.5M	203.31	
102.0			
MgSO <sub>4</sub> . 7H <sub>2</sub> O	0.5M	246.47	
123.0			

Ca<sup>++</sup> stock:

CaCl<sub>2</sub> · 6H<sub>2</sub>O  
219.0

1.0M

219.08

OR

CaCl<sub>2</sub> · 2H<sub>2</sub>O

1.0M

147.02

147.0