

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 ²⁺ Stock	3.1 ml of 1M
1.3 mM Mg ²⁺ 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 ₃	84.0 g/M	2.18 g/L
1.2 mM NaH ₂ PO ₄ . 2H ₂ 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 ²⁺ Stock	2.4 ml of 1M
1.3 mM Mg ²⁺ Stock	1.3 ml of 1M

Bring total volume to 1 liter.

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

Ca⁺⁺ stock:

CaCl₂ · 6H₂O
219.0

1.0M

219.08

OR

CaCl₂ · 2H₂O

1.0M

147.02

147.0