

Adult mouse cardiomyocyte Stock Perfusion Buffer, 1x (Dr. Kranias Laboratory)

Reagent	Source	Catalog #	F.W.	quantity	concentration
Sodium Chloride NaCl	Fisher		58.4g	6.6g	113mM
Potassium Chloride KCl	Sigma	P4504	74.6g	0.35g	4.7mM
Potassium Phosphate monobasic (KH ₂ PO ₄)	Sigma	P5655	136.1g	0.082g	0.6mM
Sodium phosphate diabolic Na ₂ HPO ₄	Sigma	S0876 or S5136	142g	0.085g	0.6mM
Magnesium sulfate heptahydrate MgSO ₄ xH ₂ O	Sigma	M1880	246.48g	0.3g	1.2mM
Phenol Red	Sigma	P5530	376.4g	0.012g	0.032mM
Sodium bicarbonate NaHCO ₃	Sigma	S8875	84.01g	1.01g	12mM
potasium bicarbonate KHCO ₃	Sigma	361038	100.12g	1.01g	10mM
Hepes	Sigma	H7006	260.29	2.6g	10mM
Taurine	Sigma	T8691	125.15g	3.75g	30mM

Perfusion Buffer 500ml	Source	Catalog #	F.W.	quantity	concentration
Stock Perfusion Buffer, 1x			1X	490ml	0.98X
BDM			500mM	10ml	10mM
Glucose**	Sigma	G7528	180.2g/mol	0.5g	5.5mM
pH to 7.46	**NOTE: for cell culture use 11mM glucose				

Digestion buffer 50ml	Source	Catalog #	F.W.	quantity	concentration
Perfusion Buffer			1X	50ml	1X
Liberase Blendzyme	Roche	11988417001	NA	12.5mg or (1.39ml of 9mg/ml)	0.25mg/ml
Trypsin	Gibco	15090-046	10X	0.278ml	0.14mg/ml
100mM CaCl ₂			100mM	6.25ul	12.5uM

1.39ml of 9mg/ml

Stopping buffer #1 10ml	quantity	concentration
Perfusion buffer	9ml	
FBS	1ml	10%
100mM CaCl ₂	1.25ul	12.5uM

Stopping buffer #2 30ml	quantity	concentration	20 ml
Perfusion buffer	28.5ml		16.5 ml
FBS	1.5ml	5%	1 ml
100mM CaCl ₂	3.75ul	12.5uM	2.5 ul

Plating Media 10ml	Source	Catalog #	F.W.	quantity	concentration
MEM	Gibco	11575032		9.1ml	
FBS				0.5ml	5%
BDM			500mM	200ul	10mM
Pen/Strep			10000u/ml	100ul	100u/ml
L-glutamine	Gibco	25030149	200mM	100ul	2mM

Culture Media from Dan's paper

	Source	Catalog #	50ml	100ml	Concentration
MEM	Gibco	11575032	48.9ml	97.8ml	1X
ITS	Sigma	I1884	500ul	1ml	5ug/ml 5ug/ml 5ng/ml
P/S	Gibco		500ul	1ml	100u/ml
L-Glutamine	Gibco	25030149	500ul	1ml	2mM
NaHCO ₃	Sigma	S8875	0.0168g	0.0336g	4mM
Hepes	Sigma	H7006	0.12g	0.24g	10mM
BSA	Sigma		0.1g	0.2g	0.20%
Blebbistatin**	TRC	B592500	62.5ul	125ul	25uM

** After culture: For contractility use 10uM Blebbistatin
For other measurements 25uM Blebbistatin is fine