

Materials List for:

Nutrient Regulation by Continuous Feeding for Large-scale Expansion of Mammalian Cells in Spheroids

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Materials

Name	Company	Catalog Number	Comments
β TC-6 Cells	ATCC, Manassas, VA	CRL-11506	Mouse Insulinoma cell line (adherent cell type)
DPBS No Ca, No Mg	Invitrogen, Carlsbad, CA	14190-144	https://www.lifetechnologies.com/order/catalog/product/14190144?ICID=search-14190144
Dulbecco's Modified Eagles Medium	Invitrogen, Carlsbad, CA		See below for product numbers
DMEM High Glucose (500 mM)	Invitrogen, Carlsbad, CA	11965-092	http://www.lifetechnologies.com/order/catalog/product/11965092
DMEM Low Glucose (100 mM)	Invitrogen, Carlsbad, CA	11885-084	http://www.lifetechnologies.com/order/catalog/product/11885084 (note that this medium already contains pyruvate)
L-glutamine	Invitrogen, Carlsbad, CA	25030081	http://www.lifetechnologies.com/order/catalog/product/25030081?ICID=search-product
Sodium Pyruvate	Invitrogen, Carlsbad, CA	11360070	https://www.lifetechnologies.com/order/catalog/product/11360070?ICID=search-product
Heat Inactivated Porcine Serum	Gibco - Life Technologies	10082147	http://www.lifetechnologies.com/order/catalog/product/10082147
Trypsin-EDTA	Invitrogen, Carlsbad, CA	25200056	https://www.lifetechnologies.com/order/catalog/product/25200056?ICID=search-product
T-150 Tissue Culture Treated Flasks	Corning, Corning, NY	430825	http://catalog2.corning.com/LifeSciences/en-US/Shopping/ProductDetails.aspx?productid=430825(Lifesciences)&categoryname=
NuAire Cell culture incubator	Princeton, MN		US Autoflow. Any water-jacketed CO ₂ regulating cell culture incubator could be used.
Centrifuge			Sorvall RT 7 (Any similar benchtop centrifuge may be used)
Refrigerator			Any laboratory refrigerator could be used (a small table-top version was used for these studies)
1 L Glass Bottle	Corning, Corning, NY	1395-1L	Any vendor could be used. http://catalog2.corning.com/LifeSciences/en-US/Shopping/

			ProductDetails.aspx?productid=1395-1L(Lifesciences)&categoryname=
2 L Glass Bottle	Corning, Corning, NY	1395-2L	Any vendor could be used
250 ml stirred bioreactors	Corning, Corning, NY	4500-250	http://catalog2.corning.com/LifeSciences/en-US/Shopping/ProductDetails.aspx?productid=4500-250(Lifesciences)&categoryname=
Stir Plate	Fisher Scientific	11-496-104A	Any incubator safe stir-plate can be used, any vendor
Tissue Culture Dishes 100 mm Diameter	Nunc, Rochester, NY (Fisher Scientific)	1256598	Any vendor could be used (ordered through Fisher Sci)
FALCON 50 ml Conical Tubes	Falcon, San Jose, CA	1256598	Any vendor could be used
Delran Plastic Used for Custom Parts	McMaster Carr	Various	Any material of choice could be used, but Deran is chosen because it is autoclave safe, non-reactive, and easy to machine. http://www.mcmaster.com/#acetal-homopolymer-sheets/=rjrcac
Stainless Steel Pipe for custom lids	McMaster Carr	Various	Any vendor could be used. http://www.mcmaster.com/#standard-stainless-steel-tubing/=rjrd91
Custom Modified Delran Bioreactor Lids for Continuous Feeding	Custom made		Not aware of any vendors producing a similar product
Custom Modified Glass Bottle Lids for Continuous feeding	Custom made		Some vendors (e.g., Fischer Sci, Corning) make similar products in the links below.
Masterflex Digital Peristaltic Pump	Cole Parmer, Vernon Hills, IL	EW-77919-25	Any precision peristaltic pump could be used. http://www.coleparmer.com/Product/L_S_Eight_Channel_Four_Roller_Cartridge_Pump_System_115_230_VAC/EW-77919-25
PVDF Tubing Connectors (various)	Cole Parmer, Vernon Hills, IL	see link	Any vendor could be used. http://www.coleparmer.com/Category/Cole_Parmer_PVDF_Premium_Luer_Fittings/55889
Pharmed BPT Tubing L/S 16	Cole Parmer, Vernon Hills, IL	WU-06508-16	Any vendor could be used. http://www.coleparmer.com/Product/Masterflex_Pharmed_BPT_Tubing_L_S_13_25/WU-06508-16
Pharmed BPT Tubing L/S 14	Cole Parmer, Vernon Hills, IL	WU-06508-14	Any vendor could be used. http://www.coleparmer.com/Product/Masterflex_Pharmed_BPT_Tubing_L_S_13_25/WU-06508-14
Pharmed BPT Tubing L/S 13	Cole Parmer, Vernon Hills, IL	WU-06508-13	Any vendor could be used. http://www.coleparmer.com/Product/Masterflex_Pharmed_BPT_Tubing_L_S_13_25/WU-06508-13
Millipore Millex GP PES membrane 0.22 µl sterile syringe filter (used for venting, and medium filtration)	Fisher Scientific	SLGP033RS	Any vendor could be used
25 ml Graduated Pipette	Fisher Scientific	13-678-11	Any vendor could be used, and various sizes may be used
Pipetter	Fisher Scientific	13-681-15E	Any vendor, or similar product could be used
Hemocytometer	Fisher Scientific	02-671-6	Any vendor, or similar product could be used

Trypan Blue	Gibco - Life Technologies	15250-061	Any vendor, or similar product could be used. https://www.lifetechnologies.com/order/catalog/product/15250061
Inverted Light Microscope	Leica		Any vendor, or similar product could be used
One Touch Ultra Blood Glucose Meter	Fisher Scientific	22-029-293	Any vendor, or similar product could be used (e.g., Bayer)
One Touch Ultra-Strips	Fisher Scientific	22-029-292	Any vendor, or similar product could be used (e.g., Bayer)