

# Fabricating Highly Open Porous Microspheres (HOPMs) via Microfluidic Technology

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## Materials

Name	Company	Catalog Number	Comments
Centrifuge tube	Solarbio, Beijing, China		5 mL & 50 mL (sterility)
Confocal laser scanning microscopy	Leica, Wetzlar, Germany		TCS SP8
Dichloromethane	Sinopharm Chemical Reagent Co., Ltd, Shanghai, China	20161110	Research Grade
Dispensing needle	Kindly, Shanghai, China		26 G, ID: 250 $\mu$ m, OD: 460 $\mu$ m
DMEM/F-12	Gibco; Life Technologies Corporation, Calsbad, USA	15400054	DMEM/F-12 50/50, 1x (Dulbecco's Mod. Of Eagle's Medium/Ham's F12 50/50 Mix) with L-glutamine
Ethyl alcohol	Sinopharm Chemical Reagent Co., Ltd, Shanghai, China	20210918	Research Grade
Ethyl-enediaminetetraacetic acid (EDTA)-trypsin	Biological Industries, Kibbutz Beit-Haemek, Isra		Trypsin (0.25%), EDTA (0.02%)
Fetal bovine serum (FBS)	Biological Industries, Kibbutz Beit-Haemek, Isra		Research Grade
Freeze drier	Bilon, Shanghai, China		FD-1B-50
Gelatin	Sigma-Aldrich Co. Ltd, St. Louis, USA	lot# SZBF2870V	From porcine skin, Type A
Glass bottom plate	Biosharp, Hefei, China		BS-15-GJM, 35 mm
Glass capillary	Huaou, Jiangsu, China		0.9-1.1 $\times$ 120 mm
Incubator shaker	Zhicheng, Shanghai, China	ZWYR-200D	
Live dead kit cell imaging kit	Solarbio, Beijing, China	60421211112	Green fluorescence in live cells (ex/em 488 nm/515 nm). Red fluorescence in dead cells (ex/em 570 nm/602 nm)
Low-speed centrifuge	Xiangyi, Hunan, China		TD5A
Magnetron sputter	Riye electric Co. Ltd, Suzhou, China	MSP-2S	
Microflow injection pump	Harvard Apparatus, Holliston, USA		Harvard Pump 11 Plus
Penicillin-streptomycin	Biological Industries, Kibbutz Beit-Haemek, Isra	2135250	Research Grade

Phosphate buffered saline (PBS)	Servicebio Technology Co.,Ltd. Wuhan, China	GP21090181556	PBS 1x, culture grade, no Calcium, no Magnesium
Poly(lactic-co-glycolic acid)	Sigma-Aldrich Co. Ltd, St. Louis, USA	lot# MKCF9651	66–107 kDa, lactide:glycolide 75:25
Poly(vinyl alcohol)	Sigma-Aldrich Co. Ltd, St. Louis, USA	lot# MKCK4266	13-13 kDa, 98% Hydrolyzed
PVC tube	Shenchen, Shanghai, China		Inner diameter, ID: 1 mm
Rat bone marrow mesenchymal stem cells	Procell, Wuhan, China		
Scanning electron microscope	Phenom pure, Eindhoven, Netherlands		Set acceleration voltage at 5 kV
Syringe for medical purpose	Kindly, Shanghai, China		5 mL & 50 mL (with the needle)
Temperature water bath	Mingxiang, Shenzhen, China		36 W
Transformer	Riye electric Co. Ltd, Suzhou, China	SZ-2KVA	
Ultrasonic cell breaker	JY 92-IID, Scientz, Ningbo, China		JY 92-IID
UV curing glue	Zhuolide, Foshan, China		D-3100