

Materials List for:

Analysis of Interactions between Endobiotics and Human Gut Microbiota Using In Vitro Bath Fermentation Systems

Yunfei Hu¹, Huahai Chen¹, Ping Li², Baiyuan Li¹, Linyan Cao¹, Changhui Zhao¹, Qing Gu², Yeshe Yin¹

¹Key Laboratory of Comprehensive Utilization of Advantage Plants Resources in Hunan South, College of Chemistry and Bioengineering, Hunan University of Science and Engineering

²College of Food and Biological Engineering, Zhejiang Gongshang University

Correspondence to: Qing Gu at guqing2002@hotmail.com, Yeshe Yin at yinyeshi@126.com

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Materials

Name	Company	Catalog Number	Comments
0.22 µm membrane filters	Millipore	SLGP033RB	Use to filter samples
0.4-mm Sieve	Thermo Fischer	308080-99-1	Use to prepare human fecal samples
5-bromo-4-chloro-3-indolyl β-D-galactopyranoside (X-Gal)	Solarbio	X1010	Use to prepare color plate
Acetic	Sigma-Aldrich	71251	Standard sample for SCFA
Agar	Solarbio	YZ-1012214	The component of medium
Anaerobic chamber	Electrotek	AW 400SG	Bacteria culture and fermentation
Autoclave	SANYO	MLS-3750	Use to autoclave
Bacto soytone	Sigma-Aldrich	70178	The component of medium
Baking oven	Shanghai Yiheng Scientific Instruments Co., Ltd	DHG-9240A	Use to heat and bake
Beef Extract	Solarbio	G8270	The component of medium
<i>Bifidobacterium longum Reuter</i>	ATCC	ATCC® 51870™	Bacteria
Bile Salts	Solarbio	YZ-1071304	The component of medium
Butyric	Sigma-Aldrich	19215	Standard sample for SCFA
CaCl ₂	Solarbio	C7250	Salt solution of medium
Capillary column	SHIMADZU-GL	InertCap FFAP (0.25 mm × 30 m × 0.25 µm)	Used to SCFA detection
Casein Peptone	Sigma-Aldrich	39396	The component of medium
Centrifuge	Thermo Scientific	Sorvall ST 8	Use for centrifugation
CoSO ₄ ·7H ₂ O	Solarbio	C7490	The component of medium
CuSO ₄ ·5H ₂ O	Solarbio	203165	The component of medium
Cysteine-HCl	Solarbio	L1550	The component of medium
Ethanol	Sigma-Aldrich	E7023	Use to prepare vitamin K ₁
FeSO ₄ ·7H ₂ O	Solarbio	YZ-111614	The component of medium
Formic Acid	Sigma-Aldrich	399388	Used to TLC
Gas chromatography	Shimadzu Corporation	GC-2010 Plus	Used to SCFA detection
Glass beaker	Fisher Scientific	FB10050	Used for slurry preparation
Glucose	Solarbio	G8760	The component of medium
Haemin	Solarbio	H8130	The component of medium
HCl	Sigma-Aldrich	30721	Basic solution used to adjust the pH of the buffers
Isobutyric	Sigma-Aldrich	46935-U	Standard sample for SCFA

Isovaleric Acids	Sigma-Aldrich	129542	Standard sample for SCFA
K ₂ HPO ₄	Solarbio	D9880	Salt solution of medium
KCl	Solarbio	P9921	The component of medium
KH ₂ PO ₄	Solarbio	P7392	Salt solution of medium
LiCl.3H ₂ O	Solarbio	C8380	Use to prepare color plate
Meat Extract	Sigma-Aldrich-Aldrich	70164	The component of medium
Metaphosphoric Acid	Sigma-Aldrich	B7350	Standard sample for SCFA
MgCl ₂ .6H ₂ O	Solarbio	M8160	The component of medium
MgSO ₄ .7H ₂ O	Solarbio	M8300	Salt solution of medium
MISEQ	Illumina	MiSeq 300PE system	DNA sequencing
MnSO ₄ .H ₂ O	Sigma-Aldrich	M8179	Salt solution of medium
Mupirocin	Solarbio	YZ-1448901	Antibiotic
NaCl	Solarbio	YZ-100376	Salt solution of medium
NaHCO ₃	Sigma-Aldrich	792519	Salt solution of medium
NanoDrop ND-2000	NanoDrop Technologies	ND-2000	Determine DNA concentrations
NaOH	Sigma-Aldrich	30620	Basic solution used to adjust the pH of the buffers
n-butanol	ChemSpider	71-36-3	Used to TLC
NiCl ₂	Solarbio	746460	The component of medium
Orcinol	Sigma-Aldrich	447420	Used to prepare orcinol reagents
Propionic	Sigma-Aldrich	94425	Standard sample for SCFA
QIAamp DNA Stool Mini Kit	QIAGEN	51504	Extract bacterial genomic DNA
Ready-to-use PBS powder	Sangon Biotech (Shanghai) Co., Ltd.	A610100-0001	Used to prepare the lipid suspension
Resazurin	Solarbio	R8150	Anaerobic Equipment
Speed Vacuum Concentrator	LABCONCO	CentriVap	Use to prepare EPSs
Starch	Solarbio	YZ-140602	Use to the carbon source
Sulfuric Acid	Sigma-Aldrich	150692	Used to prepare orcinol reagents
T100 PCR	BIO-RAD	1861096	PCR amplification
TLC aluminium sheets	MerckMillipore	116835	Used to TLC
Trypticase Peptone	Sigma-Aldrich	Z699209	The component of medium
Tryptone	Sigma-Aldrich	T7293	The component of medium
Tween 80	Solarbio	T8360	Salt solution of medium
Valeric	Sigma-Aldrich	75054	Standard sample for SCFA
Vitamin K ₁	Sigma-Aldrich	V3501	The component of medium
Vortex oscillator	Scientific Industries	Vortex.Genie2	Use to vortexing
Yeast Extract	Sigma-Aldrich	Y1625	The component of medium
ZnSO ₄ .7H ₂ O	Sigma-Aldrich	Z0251	The component of medium