

Generation, Maintenance, and Identification of Germ-Free Zebrafish Models from Larvae to Juvenile Stages

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Materials

Name	Company	Catalog Number	Comments
AB-GZM	Amphotericin:Solarbio; kanamycin:Solarbio; Ampicillin:Solarbio.	Amphotericin:CAS:1397-89-3; kanamycin:CAS: 25380-94-0; Ampicillin:CAS: 69-52-313.	49.6 mL GZM, 50 μ L amphotericin stock solution (250 μ g/mL), 25 μ L kanamycin stock solution (10 mg/mL), and 250 μ L ampicillin stock solution (20 mg/mL).
1.5 mL, 15 mL, 50 mL EP tubes	biosharp	BS-15-M	To collect samples, and hold agents
2.4 g/L NaClO	XILONG SCIENTIFIC Co., Ltd.	CAS: 7681-52-9	Diluted with 8% sodium hypochlorite aqueous solution.
6-well plates, 24-, 48- well plates	LABSELECT	11112	To culture fish
<i>Aeromonas</i>	NCBI database	No.MK178499	2019-JPP-ESN
Anaerobic TSA plates	tryptone:Oxoid ; soy peptone:Solarbio ;NaCl:Biosharp; agar powder:BioFroxx.	tryptone:LP0042B; soy peptone:Cat#S9500; NaCl:BS112; agar powder:9002-18-0.	The TSA plates were prepared with 400 mL medium containing 6 g tryptone, 2 g soy peptone, 2 g NaCl, and 6 g agar powder under the anaerobic system.
Anaerobic work station	GENE SCIENCE	E200G	Bacterial isolation, sterile testing
Analysis	GraphPad Prism 5	v6.07	To analysis the data
API 20 E kits	BioMerieux SA, France	No.1005915090	Ref 20100 Kits to detect bacterial metabolism
<i>Artemia</i> (Brine shrimp)	Shangjia Aquarium Co., Ltd.	Aquamaster brand	Artemia cysts, and brine shrimp eggs
Auto cycle system for fish culture	Ningbo Hairui Technology Co., Ltd	No Cat	Maintain the fish
Autoclave	Zeal Way	G154DWS	Prepare the materials
BHI Aerobic	Coolaber	Cat#PM0640	BHI medium was prepared, wherein 100 mL medium included 3.7 g BHI powder.
BHI Anaerobic	Coolaber	Cat#PM0640	BHI medium was prepared and divided into anaerobic tubes under the anaerobic system.
Biochemical incubator	LongYue Co., Ltd	SPX	For fish and plates
Biosafety cabinet	Haier	HR40-IIA2	Sterile treatment and testing
Bleaching agent of 0.02 g/L NaClO	XILONG SCIENTIFIC Co., Ltd.	CAS: 7681-52-9	Working solution with sodium hypochlorite (NaClO) concentration:

			Diluted with 8% sodium hypochlorite aqueous solution or 166.6 uL 6% sodium hypochlorite with 500 mL distilled water.
Blood plates	sheep blood:Solarbio	Cat. NO. TX0030	Sterile-defibrinated sheep blood was added into TSA to prepare 5% blood plates.
Cell culture flask	Corning	430639	To culture fish
CM-Dil dyes	Molecular Probes	Cat#C7000	To label the bacteria
Constant temperature shaking incubator	Peiving Co., Ltd	HZQ-X100	Bacterial culture
Database	NCBI	Bacteria and Archaea database	Link: Archaea FTP: ftp://ftp.ncbi.nlm.nih.gov/refseq/TargetedLoci/Archaea/ Bacteria FTP: ftp://ftp.ncbi.nlm.nih.gov/refseq/TargetedLoci/Bacteria/
Disposable Pasteur pipette	biosharp	bs-xh-03l	Used to change water, and transfer eggs
Disposable petri dish	biosharp	BS-90-D	To culture fish
DNA kits	Solaribio	Cat#D1600	Bacterial genomic DNA extraction kits
Electric pipette	SCIOLOGEX	Levo me	Change water
Exiguobacterium	NCBI database	No.MK178504	2019-JPP-ESN
GZM	Sea salt:LANDEBAO Co., Ltd.	No Cat	Composed of 1 L of water and 1.5 mL of sea salt solution (40 g/L), autoclaved. The content of sea salt in the GZM solution was 60 mg/L.
Laboratory pure water system	Hitech Co., Ltd	Prima-S15	Prepare the agents
Microscope	Nikon	SMZ18	With fluorescent light to observe fish larvae
PCR kits	TIANGEN	Cat#ET101	Taq DNA Polymerase kit
Pipette	LABSELECT	sp-013-10	Change water
Povidone iodine (PVP-I)	Aladdin	Lot#H1217005	Aqueous solution povidone iodine 0.4 g/L pure water.
Timing converter	PinYi Co., Ltd	AL-06	To regulate the light
TSA plates	tryptone:Oxoid ; soy peptone:Solarbio ;NaCl:Biosharp; agar powder:BioFroxx.	tryptone:LP0042B; soy peptone:Cat#S9500; NaCl:BS112; agar powder:9002-18-0.	TSA plates were prepared with 400 mL medium containing 6 g tryptone, 2 g soy peptone, 2 g NaCl, 6 g agar powder.
TSB Aerobic	tryptone:Oxoid ; soy peptone:Solarbio ;NaCl:Biosharp;	tryptone:LP0042B; soy peptone:Cat#S9500; NaCl:BS112;	TSB medium was prepared, wherein 400 mL medium included 6 g tryptone, 2 g soy peptone, and 2 g NaCl.
TSB Anaerobic	tryptone:Oxoid ; soy peptone:Solarbio ;NaCl:Biosharp;	tryptone:LP0042B; soy peptone:Cat#S9500; NaCl:BS112;	TSB medium was prepared and divided into the anaerobic tubes under the anaerobic system.
Ultra-clean workbench	Airtech	SW-CJ-2FD	Sterile treatment and testing
Ultra-pure flow system for fish culture	Marine Biological Equipment company	No Cat	Produce water for fish
<i>Vibrio</i>	NCBI database	No.MK178501	2019-JPP-ESN