

Materials List for:

# Murine Oropharyngeal Aspiration Model of Ventilator-associated and Hospital-acquired Bacterial Pneumonia

Travis B. Nielsen<sup>1</sup>, Jun Yan<sup>1</sup>, Brian Luna<sup>1</sup>, Brad Spellberg<sup>1,2</sup>

<sup>1</sup>Department of Molecular Microbiology and Immunology, University of Southern California

<sup>2</sup>Division of Infectious Diseases, Department of Medicine, LAC+USC Medical Center

Correspondence to: Travis B. Nielsen at [travis.nielsen@gmail.com](mailto:travis.nielsen@gmail.com)

URL: <https://www.jove.com/video/57672>

DOI: [doi:10.3791/57672](https://doi.org/10.3791/57672)

## Materials

Name	Company	Catalog Number	Comments
Agar	BD	214530	Combine with TSB to make TSA
Beads, Borosilicate Glass	Kimble	135003	Sterilize by baking or autoclaving before each use
Beaker, 250 mL	Pyrex	1003	Used during precise aliquoting of concentrated bacterial inocula
Centrifuge	Sorvall	ST 40R	Capable of 4,000×g at 4°C
Chamber for Anesthesia	Kent Scientific Corporation	VetFlo-0720	Accommodates up to 5 mice
Cryomold, Intermediate Size	Sakura Tissue-Tek	4566	Disposable vinyl specimen molds, 15×15×5 mm
Dental Floss	Oral-B	37000469537	Tie to stable post approx. 6" above table height
Forceps	VWR	82027-440	Used to gently pull tongue out of mouse's mouth
Homogenizer for Lung Tissue	Omni International	TM125-115	Autoclave before first use; rinse between samples
Isoflurane for Anesthesia	Abbott	10015516	Alternative drug can be used; modify procedure accordingly
iSTAT Cartridge	Abbott	03P79-25	Various cartridges are available to suit your needs
Ketamine, 100 mg/mL	Western Medical Supply	4165	Dilute 1:10 in PBS to 1 mg/mL and combine with Xylazine at 1 mg/mL
Ointment for Eyes	Akorn	Tears Renewed	Avoid touching eye with tip of dispenser
Optimal Cutting Temperature (O.C.T.) Compound	Fisher Scientific	23-730-571	Used to freeze lung samples at -80 °C to prepare for pathology sectioning
Petri Dish	VWR	25384-302	Polystyrene, disposable, sterilized, 100×15 mm
Phosphate-Buffered Saline (PBS)	Corning	21-031-CM	Dulbecco's PBS without calcium and magnesium
Pipette Tips, 200-µL	VWR	10017-044	Autoclave before use
Pipetter, 200-µL	Gilson	Pipetman P200	Autoclave and calibrate before use
Spreader, Bacterial Cell	Bel-Art	F377360006	Sterilize by baking or autoclaving before each use
Stir Bar, Magnetic, 7.9 mm Diameter × 38.1 mm Length	VWR	58948-150	Used for stirring concentrated bacterial inocula during aliquoting
Stir Plate, Magnetic	Corning	PC-620D	Used for stirring concentrated bacterial inocula during aliquoting
Tryptic Soy Broth (TSB)	BD	211822	Combine with Agar to make TSA

Vial, Conical, Sterile, 50 mL	Corning	431720	Used for preparing bacterial inocula
Vial, Conical, Sterile, 500 mL	Corning	431123	Used to concentrate inocula for preparing frozen inocula
Vial, Cryogenic, 2.0 mL	Corning	430659	Used for cryogenic storage of concentrated bacterial inocula
Xylazine, 20 mg/mL	Akorn	AnaSed Injection	Dilute 1:20 in PBS to 1 mg/mL and combine with Ketamine at 1 mg/mL