

Materials List for:

# Combination of Adhesive-tape-based Sampling and Fluorescence *in situ* Hybridization for Rapid Detection of *Salmonella* on Fresh Produce

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## Materials

Name	Company	Catalog Number	Comments
Fungi-Tape sampling tape	Scientific Device Laboratory	745	<a href="http://www.scientificdevice.com/">http://www.scientificdevice.com/</a>
Con-Tact-It sampling tape	Birko Corporation, Denver, CO		<a href="http://www.birkocorp.com/">http://www.birkocorp.com/</a>
Clear office tape, generic	Various		Should be optically clear, have low intrinsic fluorescence
Food surface	Local Grocery Store		Tomat-s (red tomat-s on the vine, not waxed or oiled) used here
Trypticase Soy Broth	Difco Laboratories	211768	For non-selective liquid surface miniculture enrichment
Xylose-lysine-Tergitol 4 agar base	Difco Laboratories	223420	For <i>Salmonella</i> -selective agar (XLT-4)
Xylose-lysine-Tergitol 4 agar supplement	Difco Laboratories	235310	For <i>Salmonella</i> -selective agar (XLT-4)
Formalin solution	Sigma-Aldrich	HT5011	10% solution, neutral, buffered (cell fixative)
Absolute ethanol	Sigma-Aldrich	E7023	Molecular biology grade (pre-hybridization dehydration)
1.5 ml microcentrifuge tubes	Various		RNase- and DNase-free
Microscope slides and cover slips	Thermo Fisher Scientific, Inc.		
NaCl solution	Sigma-Aldrich	S5150	Molecular biology grade, 5M solution (hybridization buffer component)
Tris-EDTA buffer solution (100X concentrate)	Sigma-Aldrich	T9285	1M Tris [pH 8.0], 0.1M EDTA (hybridization buffer component)
Sodium dodecyl sulfate solution	Sigma-Aldrich	L4522	10% solution in 18 megohm water (hybridization buffer component)
Sal3 and Salm-63 oligonucleotide probes	Integrated DNA Technologies		5'-labeled with 6-carboxyfluorescein (FAM) or Texas Red (for microscopy) or Cy5 (for cytometry), HPLC-purified
Variable speed microcentrifuge	Various		Use rotor diameter to calculate RPM needed for RCF values described in protocol
CoverWell perfusion chamber	Grace Bio-Lab Inc.	PC1R-2.0	Non-sterile
Gel loading pipette tips (FS MultiFlex)	Thermo Fisher Scientific, Inc.	05-408-151	Long, thin tips for easy access to small sampling ports and maneuverability within chamber
Aluminum heat block or precision-controlled heating station	Various		Eppendorf Thermomixer R dry block heating and cooling shaker used here

Bambino mini hybridization oven	Boekel Scientific	Model 230300	Slides are placed in 50 ml polypropylene centrifuge tubes for hybridization, heat transfer not direct
Slide Moat slide hybridizer	Boekel Scientific	Model 240000	Provides rapid, direct transmission of heat through glass slide
Vectashield H-1200 mounting medium with 4',6-diamidino-2-phenylindole (DAPI)	Vector Laboratories	H-1200	Minimizes quenching of fluorescence during microscopy, provides DAPI counterstain
Fluorescence microscope	Various		Leitz Laborlux S used here
Digital camera	Various		Canon PowerShot A640 camera used here
Image acquisition software	Various		Axiovision software v. 4.6 (Carl Zeiss) used
Adobe Photoshop	Adobe		For minimal processing of images (overlay of images taken in different channels)
Flow cytometer	Various		FACSCanto flow cytometer (BD Biosciences, San Jose, CA) with red (647 nm) excitation used
Flow cytometry analysis software	Various		FlowJo software v. 8.7.1 (Tree Star, Inc.) used