

Contact Mode Atomic Force Microscopy as a Rapid Technique for Morphological Observation and Bacterial Cell Damage Analysis

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Materials

Name	Company	Catalog Number	Comments
AFM EasyScan 2	NanoSurf	discontinued	Measurement Media
bacteriological loop	No aplica	not applicable	instrument for bacterial inoculation
BigDye Terminator v3.1	ThermoFisher Scientific	4337455	Matrix installation kit
Bioedit	not applicable	version 7.2.5	Sequence alignment editor
Cary 60 spectrometer	Agilent Technologies	not applicable	
ceftriazone	Merck	not applicable	antibiotic
centrifuge	eppendorf	not applicable	to remove particles that interfere with AFM
ContAI-G Silicon cantilever	BudgetSensors	ContAI-G-10	Measurement Media
eosin and methylene blue agar	Merck	not applicable	bacterial culture medium
<i>Escherichia coli</i>	American Type Culture Collection	ATCC 25922	bacterial strain
GoTaq Flexi DNA Polymerase	Promega	M8295	PCR of 16S rRNA gene
microplate	Thermo Scientific	10558295	for microdilution analysis
Müller-Hinton broth	Merck	not applicable	bacterial culture medium
nutrient agar	Merck	not applicable	bacterial culture medium
nutritious broth	Merck	not applicable	bacterial culture medium
Petri dishes	not applicable	not applicable	growth of bacteria
<i>Pseudomonas hunanensis</i> 9AP	not applicable	not applicable	isolated from the garlic bulb by CNRG
Sanger sequencing	Macrogen	not applicable	sequencing service
ScienceDesk Anti-Vibration workstation	ThorLabs		
slides	not applicable	not applicable	glass holder for bacterial sample analysis
<i>Staphylococcus aureus</i>	American Type Culture Collection	ATCC 25923	bacterial strain
Thermalcycler	Applied Biosystems	Veriti-4375786	PCR amplification

Trypticasein soy agar	BD	BA-256665	growth media
ultrasonicator	Cole-Parmer Ultrasonic Processor, 220 VAC	not applicable	for mixing the nanoparticle dilutions