

# **MICROGEN DIAGNOSTICS**

2002 W LOOP 289, SUITE 116 | LUBBOCK, TX 79407 FAX: 1-407-204-1401 | PHONE: 1-855-208-0019

PATIENT	Sample Report MG002	SPECIMEN	Vaginal Sw 10:00	PHYSICIAN	Sharma, Rajendra
DOB	xx/xx/xxxx	RECEIVED DATE	01/10/2023	PHONE	-
PATIENT ID		REPORTED DATE	01/10/2023 4:10 PM	FAX	-
GENDER	Female	COLLECTED DATE	01/06/2023	ACCESSION	

### **RESISTANCE GENES DETECTED**

None

LEVEL 1 PCR REPORT		ANTIMICROBIALS FOR CONSIDERATION															
				nikacin		Penicillins e.g.		icillins/Beta- . Augmentin		ıycin							
THIS IS A PRELIMINARY R NEXT GENERATION SEQU RESULTS ARE PENDING REPORT WILL BE AVAIL TYPICALLY IN 3-5 BUSINES	ENCING G. THE LABLE SS DAYS.	Gram Stain	Respiration	Aminoglycosides e.g. Amikacin	Ampicillin/Amoxicillin	Anti-Pseudomonal Peni Mezlin	Clindamycin	Extended spectrum penicillins/Beta- lactamase inhibitors e.g. Augmentin	Linezolid (Zyvox)	Macrolides e.g Erythromycin	Penicillins e.g. Penicillin						
RAPID SCREENING (PCR RESULTS)		iram	espi														
BACTERIAL LOAD	Med		~	IV	PO	IV	PO	РО	РО	РО	РО						
Lactobacillus crispatus/acidophilus	Medium	+	An	√	√	√	√	V	√	√	√						
																	$\sqcup$
																	Щ
FUNGI DETECTED					1A	NTIF	UN	GAI	_S F	OR	CO	NSI	DE	RAT	101		
None																	Ш
																	Ш

LAB REPORT KEY									
DNA copies (N/A):	Gram Stain:	Respiration:	Antimicrobial:						
[NGS] = Detected by Next-Gen Seq. Only	[+] = Positive	[Ae] = Aerobic	[v] = Proven to be effective.						
Bacterial Load: < 10 <sup>5</sup> = LOW	[-] = Negative	[An] = Anaerobic	[R] = Resistance genes detected.						
10 <sup>5</sup> to 10 <sup>7</sup> = MED	[V] = Variable	[Fan] = Facultative anaerobic	[]=Empty Fields denote Unknown.						
> 10 <sup>7</sup> = HIGH	[N] = Not Applicable	[Unk] = Unknown	[PO]= Available in Oral formulations.						
	[U] = Unknown		[IV] = Intravenous; [TP] = Topical.						

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L1 BV PANEL qPCR TESTS FOR BACTERIA			FUNGI	STIs	RESISTANCE	GENES
Streptococcus agalactiae	Mobiluncus curtisii	Mobiluncus mulieris	Candida albicans	None	Vancomycin	Methicillin
Gardnerella vaginalis	Ureaplasma urealyticum	Ureaplasma parvum			Extended-Spectrum Beta-	Beta-lactam
Mycoplasma hominis	Prevotella bivia	Lactobacillus crispatus/acidophilus			Lactamase	Tetracycline
Lactobacillus gasseri					Aminoglycoside	Macrolide
					Carbapenem	Bactrim
					Quinolone	

Antimicrobial class reported as resistant are based on the detected resistance genes included in the qPCR and the published activity and spectrum of resistance for each gene. Resistance mechanisms other that the included in this panel may confer resistance not detected by the resistance genes included in the panel.

The following genes are included in the panel:

- •mecA: methicillin resistance (applies only to Staphylococcus spp.)
- •vanA: vancomycin resistance (applies only to Enterococcus spp.)
- •CTX-M: Extended Spectrum Beta-lactamase (applies to all Gram-negative organisms)
- •KPC, NDM & OXA48: carbapenemases (applies to all Gram-negative organisms)
- •ermB: macrolide resistance (applies only to Gram-positive organisms
- •qnr & gyrA: quinolone resistance (applies to all organisms)
- •tetB & tetM: tetracycline resistance (applies to all organisms)
- •aacC6-aph3 & ant-la-aph2: aminoglycoside resistance (applies to all organisms)
- •sul I, sul II: bactrim resistance (applies to all Gram-negative organisms except Neisseria, Moraxella, Veillonella, Megasphaera, Acidaminococcus, Negativicoccus, Paracoccus, Syntrophococcus, Pseudomonas)
- •TEM, SHV: beta-lactam resistance (applies only to Escherichia coli, Proteus mirabilis, Klebsiella pneumoniae, Klebsiella oxytoca and Klebsiella aerogenes)

#### Rapid Screening (PCR Results)

MicroGen Diagnostics Rapid Screening testing is used to rapidly analyze samples for the most commonly found bacteria and fungi in clinical samples of many different types. The sample composition is identified by quantitative PCR analysis with a specified panel of microorganisms. Bacterial and fungal amounts per mL (or mg) based upon standard curves for each target specific organism and 16S. All tests are performed in a CAP and CLIA accredited laboratory.

ANTIBIOTIC CLASSES AND MOST-COMMONLY USED EXAMPLES								
CLASS	GENERIC formulations	CLASS	GENERIC formulations					
Allylamines	Amorolfine; Naftifine	Flucytosine	5-fluorocytosine (Ancobon)					
Aminoglycosides	Gentamycin; Tobramycin	Fluoroquinolones	Norfloxacin(PO); Levofloxacin;					
Aminoglycosides+Aminopenicillins	Ampicillin/Gentamicin		Oxafloxacin(PO); Ciprofloxacin(PO)					
Aminopenicillins	Amoxicillin; Ampicillin(PO)	Glycopeptides	Vancomycin; Teicoplanin					
Antifolates	TMP/SMX	Imidazoles	Ketoconazole(PO); Clotrimazole;					
Anti-Pseudomonal Penicillins	Piperacillin; Nafcillin		Oxiconazole					
Anti-Pseudomonal penicillins/Beta-	Piperacillin/Tazobactam	Lipopeptides	Daptomycin					
lactamase inhibitors		Macrolides	Erythromycin; Azithromycin(PO)					
Anti-tuberculosis	Isoniazid; Rifampin; Streptomycin	Naphthyridones	Nalidixic acid					
Aztreonam	Azactam	Oxacephems	Moxalactam					
Carbapenems	Cilistatin/Imipenem; Meropenem	Penicillins	Penicillin G; Penicillin V(PO)					
Cephalosporins First Gen	Cephalexin(PO); Cefazolin	Polyenes	Natamycin; Amphotericin B					
Cephalosporins Fourth Gen	Cefepime	Polyenes+Flucytosine	Amphotericin B/5-fluorocytosine					
Cephalosporins Second Gen	Cefprozil; Cefotetan	Tetracyclines	Doxycycline(PO); Minocycline					
Cephalosporins Third Gen	Cefixime; Cefdinir; Ceftazidime	Triazoles	Fluconazole(PO); Terconazole					
Cephamycins	Cefoxitin	Triazoles+Echinocandins	Voriconazole/Anidulafungin					
Echinocandins	Caspofugin; Micafungin							
Extended spectrum penicillins /	Amoxicillin / Clavulanate(PO);							
Beta-lactamase inhibitors	Ampicillin / Sulbactam							

### **Complete Antibiotic Analysis**

ANTIBIOTIC DISCLAIMER: Southwest Regional PCR, DBA MicroGen Diagnostics, LLC assumes no liability to patients with respect to the actions of physicians, health care facilities and other users, and is not responsible for any injury, death or damage resulting from the use, misuse or interpretation of information obtained through this antibiotic report. Therapeutic options listed by the program are based upon national antibiotic susceptibility data and antibiograms. Therapy should not be undertaken without a thorough assessment of the indications, contraindications and side effects of any prospective drug or intervention. Furthermore, the database is curated and derived from incidence and prevalence statistics whose accuracy will vary widely for individual diseases and regions of the country. Changes in endemicity, incidence, and drugs of choice may occur. The list of drugs, infectious diseases and even country names will vary with time. Although we endeavor to include such new information on a timely basis, a delay cannot be avoided. For more information please contact us at 855-208-0019.

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DISCLAIMER: (i)This test was developed and performance characteristics have been determined by Southwest Regional PCR Laboratory dba MicroGen DX. It has not been cleared or approved by the U.S.Food and Drug Administration(FDA), however, the FDA has determined that such clearance or approval is not necessary. This test is used for clinical purposes. Its use should not be regarded as investigational or for research. This laboratory is certified under the Clinical Laboratoratory Improvement Amendments of 1988 (CLIA 88) as qualified to perform high complexity clinical laboratory testing. (ii) A negative result does not rule out the presence of PCR inhibitors, or DNA extraction inhibitors such as lidocaine, in patients' specimens or microbial DNA concentrations below the level of detection of the assay. (iii) This test is performed pursuant to an agreement with Roche Molecular Systems, Inc. (iv) Relative quantitation of swabs refers to analyte load levels of < 10<sup>5</sup>, 10<sup>5</sup> to 10<sup>7</sup>, and > 10<sup>7</sup> for low, medium and high respectively. Southwest Regional PCR Laboratory dba MicroGen DX licenses are CLIA 45D1086390 and CAP 7214171.

### ANTIBIOTIC ANALYSIS

This antimicrobial recommendation sheet is not based on antibiotic sensitivities but is based on antimicrobial reference guides such as the Johns Hopkins ABX Guide.

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