

All-in-One Microbial Test

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Patient Name	Zuzu	Health Status	Chronic diarrhea	Sample ID	MI19103839
Owner's Name	Gail Rocco	Ordered By	Dr. Theresa Cavallaro	Sample Type	Feces
Gender	F, Spayed	Email	paul@baystanimalhospital.com	Received Date	08/23/21
Breed	DSH	Hospital	Bay Street Animal Hospital	Report Date	8/25/2021

Age 11 years Location Staten Island, NY

Species Feline Account Number 100A312

Potential Clinically Relevant Microbes Detected:

Listed are those bacteria and fungi detected in the specimen that are of potential clinically relevance. Results from this report should be considered together with additional clinical data gathered by the veterinarian (physical examination, medical history, cytology, etc.) as the microbes detected may or may not be the cause of the clinical condition. For a comprehensive list of all microorganisms detected in this specimen see page 3 of this report.

1. Bacteria

Species Detected	Relative Abundance (%)	Cells per sample
<u>Prevotellaceae sp</u> [1]	14.05	43000000
<u>Peptoclostridium sp</u> [2]	8.97	27000000
Fusobacterium sp [2]	4.94	15000000

2. Fungi

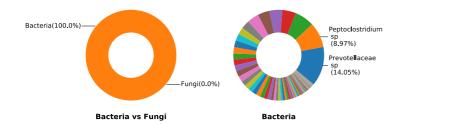
Species Detected	Relative Abundance (%)	Cells per sample
<u>Alternaria sp</u>	23.93	33
<u>Fusarium sp</u>	17.77	24
<u>Penicillium sp</u>	2.40	3

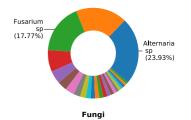
Abbreviation Key:

- Normal. Species detected within the reference range of clinically healthy dogs.
- Intermediate. Species detected outside the reference range of clinically healthy dogs.
- High. Species detected significantly higher than the reference range of clinically healthy dogs.

Microbial Overview:

Charts below depict *Bacteria vs Fungi*: an overview of the microbiome, *Bacteria*: the relative abundance of all clinically relevant species detected relative to the rest of the microbiome for bacteria, and *Fungi*: the relative abundance of all clinically relevant species detected relative to the rest of the microbiome for fungi. Each color represents a different species. The larger the size of the colored segment, the more abundant that specific species is in the specimen. The purpose of these graphs is to highlight if any clinically relevant organism is overgrown in the sample.







Antibiotic Resistance Panel for Detected Clinically Relevant Microbes

The sample was screened for the presence of antibiotic resistance genes and intrinsic resistances of clinically relevant microorganisms. We recommend the cautious use of any antibiotic drug and to follow the guidelines for antimicrobial stewardship in veterinary practice.

	<u>Peptoclostridium</u> <u>Fusobacterium</u>				
Antibiotics	(8.97%)	(4.94%)	Suggested Dose	Drug Delivery	
Ampicillin	ND	(4.94%) ND	22 mg/kg, q 8hrs	IV, SC	
Amoxicillin	ND	ND	22 mg/kg, q 8hrs	PO	
Oxacillin	ND	ND			
Benzylpenicillin	ND	ND			
Cefadroxil	ND	ND	22 mg/kg, q 12 hrs	PO	
Cefazolin	ND	ND	15 mg/kg, q 12 hrs	IV, SC	
Cefpodoxime	ND	ND	5 mg/kg, q 24 hrs	PO	
Ceftiofur	ND	ND	2.2 mg/kg, q 24 hrs	SC	
Cephalexin	ND ND	ND	22 mg/kg, q 12 hours	PO	
Cefovecin	ND	ND	8 mg/kg, once	SC	
Cefoxitin	ND ND	ND	15 mg/kg, q 12hrs	IV, SC	
Enrofloxacin	ND ND	ND ND	5 mg/kg, q 24hrs	PO	
Marbofloxacin	ND ND	ND ND	2.75 mg/kg, q 24hrs	PO	
Ciprofloxacin	ND ND	ND ND			
Pradofloxacin	ND ND	ND ND			
Clindamycin	ND ND	ND ND	E E madra a 12hm	PO	
•		ND ND	5.5 mg/kg, q 12hrs		
Lincomycin	ND ND		10 mg/kg g 12 hm	PO	
Erythromycin	ND ND	ND ND	10 mg/kg q 12 hrs		
Azithromycin	ND	ND	5 mg/kg q 12 hrs	PO	
Sulfonamide	ND	ND	30 mg/kg, q 12hrs	PO	
Doxycycline	ND	ND	5 mg/kg, q 12hrs	PO	
Tetracycline	ND	ND	20 mg/kg, q 12hrs	PO	
Minocycline	ND	ND			
Neomycin	ND	ND	Topical use	Topical use	
Amikacin	ND	ND	15 mg/kg, q 24hrs	IV, SC	
Gentamicin	ND	ND	6 mg/kg, q 24hrs	IV, SC	
Clavamox	ND	ND	13.75 mg/kg, q 12hrs	PO	
Timentin	ND	ND	Topical use	Topical use	
Ceftazadime	ND	ND			
Florfenicol	ND	ND			
Chloramphenicol	ND	ND	35 mg/kg q 8 hrs	PO	
Imipenem	ND	ND			
Mupirocin	ND	ND	Topical use	Topical use	
Rifampicin	ND	ND			

This table lists antibiotic sensitivities/resistances for the indicated bacteria based on detection of specific antibiotic resistance genes and naturally occurring, or intrinsic, resistance to specific antibiotics previously identified for that organism. To receive a list of the antibiotic resistance genes detected as well as intrinsic resistances for additional organisms not listed here, please contact MiDOG[®] customer support.

Abbreviation Key:

ND = Not Detected. According to our test the organism is most likely sensitive to this antibiotic. No antibiotic resistance gene or intrinsic resistance was detected.

R = Resistance. An Antibiotic resistance gene for the indicated antibiotic was detected and the organism is likely resistant to the suggested dose

IR = Intrinsic Resistance. No resistance genes are detected or available for testing, would not recommend this antibiotic due to likely resistant to the indicated antibiotic based on intrinsic factors inferred from microbiological and clinical literature.

PO = Oral. By Mouth.

IV = Intravenous Injection. Injections involving direct injection into the vein.

SC = Subcutaneous Injection. The medication delivered to the tissues between the skin and the muscle.

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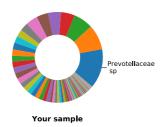


Supplemental Data on Microbial Composition

Patient Name

Bacterial Analysis

Charts below depict the relative abundance of all detected bacterial species. Each color represents a different bacterial species. The larger the size of the colored segment, the more abundant that specific species is in the specimen.

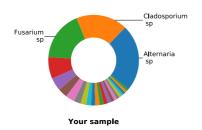


The table below lists all bacterial species detected in the specimen within the limit of detection. The absolute and relative abundances of each species is shown.

Species Detected	Relative Abundance (%)	Cells per sample
<u>Prevotellaceae sp</u>	14.05	43000000
<u>Peptoclostridium sp</u>	8.97	27000000
<u>Fusobacteriales sp</u>	6.92	21000000

Fungal Analysis

Charts below depict the relative abundance of all detected fungal species. Each color represents a different fungal species. The larger the size of the colored segment, the more abundant that specific species is in the specimen.



The table below lists all fungal species detected in the specimen within the limit of detection. The absolute and relative abundances of each species is shown.

Species Detected	Relative Abundance (%)	Cells per sample
<u>Alternaria sp</u>	23.93	33
<u>Cladosporium sp</u>	18.31	25
<u>Fusarium sp</u>	17.77	24
Fungi sp	7.76	10

Patient Name Owner's Name

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References

- 1. Li Q., Lauber C.L., Czarnecki-Maulden G., Pan Y., Hannah S.S., Effects of the Dietary Protein and Carbohydrate Ratio on Gut Microbiomes in Dogs of Different Conditions. MBio. 2017 Jan 24;8(1).
- 2. Zheng Y., Xiangqi H., Lin X., Zheng Q., Zhang W., Zhou P., Li S. Bacterial diversity in the feces of dogs with CPV infection. Microb Pathog. 2018 Apr 27;121:70-76
- 3. Rodrigues Hoffmann A, Patterson AP, Diesel A et al. The skin microbiome in healthy and allergic dogs. (2014) PLoS One, 9: e8197

Method

The MiDOG® All-in-One Microbial Test is a targeted, Next-generation DNA sequencing testing service able to identify molecular signatures unique to the identity and character of a specific microorganism. This test relies on safeguarded preservation and transport of collected samples, thorough extraction of DNA from all microbes present in the specimen, select amplification of microbial DNA followed by Next-generation DNA sequencing using the latest technologies from Illumina (Illumina, Inc., San Diego, CA). Data handling is done via curated microbial databases to accurately align DNA sequences to ensure precise and accurate (species-level) identification of all bacteria and fungi present in the specimen.

When no Bacterial or Fungal Species are Detected

When no bacterial or fungal species are detected in this test, this result may be due to a very low microbial load and/or low concentration of microbial DNA in the sample provided. In this case, we recommend re-sampling the area of interest and resubmitting specimen for analysis.

Disclaimer

The information contained in this MiDOG[®] report is intended only to be factor for use in a diagnosis and treatment regime for the canine patient. As with any diagnosis or treatment regime, you should use clinical discretion with each canine patient based on a complete evaluation of the canine patient, including history, physical presentation and complete laboratory data, including confirmatory tests. All test results should be evaluated in the context of the patients individual clinical presentation. The information in the MiDOG[®] report has not been evaluated by the FDA.

Customer Support

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