

All-in-One Microbial Test

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Patient Name	Dure	Health Status	Chronic Infection	Sample ID	MI1U8905
Owner's Name	Lopez	Ordered By	Dr. Weatherford	Sample Type	Urine, Cysto
Gender	M, Neutered	Email	tsaanimalhospital@gmail.com	Received Date	08/23/21
Breed	Bull Terrier	Hospital	Tustin Santa Ana Veterinary Hospital	Report Date	8/25/2021
Age Species	6 Canine	Location Account Number	741 W First St. Tustin CA, 92780 100A150		

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

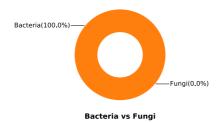
Species Detected	Relative Abundance (%)	Cells per sample
Staphylococcus pseudintermedius [2]	97.71	82000

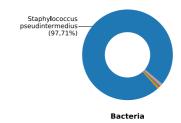
2. Fungi

None Detected

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.





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.

Antibiotic Resistance Panel for Detected Clinically Relevant Microbes

Antibiotics	Staphylococcus pseudintermedius (97.71%)	Suggested Dose	Drug Delivery
Ampicillin	ND	22 mg/kg, q 8hrs	IV, SC
Amoxicillin	ND	22 mg/kg, q 8hrs	PO
Oxacillin	ND		
Benzylpenicillin	ND		
Cefadroxil	ND	22 mg/kg, q 12 hrs	PO
Cefazolin	ND	15 mg/kg, q 12hrs	IV, SC
Cefpodoxime	ND	5 mg/kg, q 24 hrs	PO
Ceftiofur	ND	2.2 mg/kg, q 24 hrs	SC
Cephalexin	ND	22 mg/kg, q 12 hours	PO
Cefovecin	ND	8 mg/kg, once	SC
Cefoxitin	ND	15 mg/kg, q 12hrs	IV, SC
Enrofloxacin	ND	5 mg/kg, q 24hrs	PO
Marbofloxacin	ND	2.75 mg/kg, q 24hrs	PO
Ciprofloxacin	ND		
Pradofloxacin	ND		
Clindamycin	R		
Lincomycin	R		
Erythromycin	R		
Azithromycin	R		
Sulfonamide	ND	30 mg/kg, q 12hrs	PO
Doxycycline	R		
Tetracycline	R		
Minocycline	R		
Neomycin	R		
Amikacin	R		
Gentamicin	R		
Clavamox	ND	13.75 mg/kg, q 12hrs	PO
Timentin	ND	Topical use	Topical use
Ceftazadime	ND		
Florfenicol	ND		
Chloramphenicol	ND	35 mg/kg q 8 hrs	PO
Imipenem	ND		
Mupirocin	ND	Topical use	Topical use
Rifampicin	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.

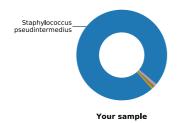
SC = Subcutaneous Injection. The medication delivered to the tissues between the skin and the muscle.



Supplemental Data on Microbial Composition

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
Staphylococcus pseudintermedius	97.71	82000

Fungal Analysis

No fungal species detected. Please Note: It is common to see no fungal load in healthy urine samples. For more information see the Methods Section under: 'When no Bacterial or Fungal Species are Detected'

Patient Name Owner's Name Dure Lopez Ordered By Account Number Dr. Weatherford

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References

- 1. Morrissey I., Moyaert H., de Jong A., El Garch F., Klein U., Ludwig C., Thiry J., Youala, M. Antimicrobial susceptibility monitoring of bacterial pathogens isolated from reiratory tract infections in dogs and cats across Europe: ComPath results.(2016) Veterinary microbiology, 191:44-51
- 2. Pierezan, F., Olivry, T., Paps, J. S., Lawhon, S. D., Wu, J., Steiner, J. M., et al. The skin microbiome in allergen-induced canine atopic dermatitis. (2016) Veterinary Dermatology, 27(5):332-e82
- 3. Liu X., Thungrat K., Boothe D. M. Occurrence of OXA-48 carbapenemase and other ?-lactamase genes in ESBL-producing multidrug resistant Escherichia coli from dogs and cats in the United States, 20092013.(2016) Frontiers in microbiology,7:1057.
- 4. Pritchard, J.C., Jacob, M.E., Ward, T.J., Parsons, C.T., Kathariou, S., Wood, M.W. Listeria monocytogenes septicemia in an immunocompromised dog. (2016) Vet Clin Pathol 45.2: 254-259.
- 5. Ehrlich G. D., Hu F. Z., Sotereanos N., Sewicke J., Parvizi J., Nara P.L., Arciola, C. R. What role do periodontal pathogens play in osteoarthritis and periprosthetic joint infections of the knee. (2014) J Appl Biomater Funct Mater12(1): 13-20
- 6. Saridomichelakis M.N., Olivry T. An update on the treatment of canine atopic dermatitis.(2016) The Veterinary Journal,207: 29-37 7. Jay-Russel M.T., Hake A.F., Bengson Y., Thiptara A., Nguyen T. Prevalence and Characterization of Escherichia coli and Salmonella Strains Isolated from Stray Dog and Coyote Feces in a Major Leafy Greens Production Region at the United States-Mexico Border. PLoS One. 2014 Nov 20;9(11):e113433
- 8. 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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