



2001 Westside Pkwy Ste 290  
Alpharetta GA 30004  
855-DRG-LABS

Sales & Service  
Ima Doctor MD  
555 Main St  
Alpharetta GA 30004

Accession: 20131107008  
Patient: John Doe  
  
Date of Birth: 12/25/1969  
Collection Date: 9/4/2014  
Completion Date: 9/8/2014  
Ref ID: 1001

## GI Pathogen Plus Profile

### Pathogens by RT-PCR

#### Bacteria and Toxins

#### Result

<i>Salmonella</i>	Equivocal
<i>Shigella</i>	Negative
<i>Campylobacter</i>	Negative
<i>E. coli</i> O157	Negative
Enterotoxigenic <i>E. coli</i> (ETEC) LT	Negative
Enterotoxigenic <i>E. coli</i> (ETEC) ST	Negative
Shiga Toxin <i>E. coli</i> Stx 1	Negative
Shiga Toxin <i>E. coli</i> Stx 2	Negative
<i>C. Difficile</i> - Tox A	Negative
<i>C. Difficile</i> - Tox B	Negative
<i>Vibrio cholerae</i>	Negative
<i>Yersinia enterocolitica</i>	Negative

#### Helicobacter pylori

<i>H. pylori</i>	2
<i>H. pylori</i> virulence factor <i>cagA</i>	Negative
<i>H. pylori</i> virulence factor <i>vacA</i>	Positive
<i>H. pylori</i> - Clarithromycin resistant	Negative

#### Parasites

<i>Cryptosporidium</i>	Positive
<i>Giardia</i>	Negative
<i>Entamoeba histolytica</i>	Negative
<i>Blastocystis hominis</i>	Negative
<i>Candida</i> species	Negative

#### Viruses

Adenovirus 40/41	Negative
Norovirus GI	Positive
Norovirus GII	Negative
Rotavirus A	Negative



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### GI Health Markers by ELISA/Colormetric

	Result		Normal Range	95th reference
Lactoferrin	17.2	µg/mL	0-7.24	>7.24
slgA1	1500	µg/mL	510-2040	>2040
slgA2	50	µg/mL	510-2040	>2040
Anti-Gliadin IgA	2.4	U/mL	< 0.5	> 0.5
Fecal Elastase 1	250	µg/mL	>200	<100
Fecal Occult Blood	Negative		Negative	

### Antibiotic Resistance by PCR

**Positive result indicates that a gene associated with antibiotic resistance was detected**

Vancomycin ( <i>vanA/vanB</i> )	Negative	Tetracycline ( <i>tetA</i> )	Positive
Fluoroquinolones ( <i>qnrA</i> )	Negative	Imidazole ( <i>nimA</i> )	Positive
<i>b</i> -Lactamase ( <i>bl2b</i> )	Positive		

### Comments on *H. pylori* Results

*H. pylori* grading :

0 : no organisms detected

1 : <500 rganisms/g (inactive infection)

2 : 501 to <5,000 organisms/g (active infection)

3 : >5,001 organisms/g (very active infection)

This assay identifies the two main virulence factors associated with *H. pylori* pathogenicity, *cagA* and *vacA*. Numerous studies have shown that strains containing either of these virulence factors are present high levels of cytotoxins are produced and thus produce more severe disease.

1. Dacie R. Bridge and D. Scott Merrell - *Polymorphism in the Helicobacter pylori CagA and VacA toxins and disease* - Department of Microbiology and Immunology; F. Edward Hébert School of Medicine; Uniformed Services University of the Health Sciences; Bethesda, MD USA Gut Microbes 4:2, 101-117; March/April 2013
2. Sicheng Wen and Steven F. Moss - *Helicobacter pylori virulence factors in gastric carcinogenesis* - Department of Medicine, Division of Gastroenterology, Rhode Island Hospital and Brown University, Providence, RI, USA - Cancer Lett. 2009 September 8; 282(1)
3. Rui M. Ferreira, et al. - *A Novel Method for Genotyping the Helicobacter pylori vacA Intermediate Region Directly in Gastric Biopsy Specimens* - Institute of Molecular Pathology and Immunology of the University of Porto, Porto, Portugala - Journal of Clinical Microbiology p. 3983-3989 December 2012 Volume 50 Number 12
4. Liviu A. Sicinschi, et al. - *Non-invasive Genotyping of Helicobacter pylori cagA, vacA, and hopQ from Asymptomatic Children* - Division of Gastroenterology, Dept. of Medicine, Vanderbilt University School of Medicine - Helicobacter. 2012 April; 17(2): 96-106

This test was developed and its performance characteristics determined by DRG Laboratory. Diagnosis and treatment are the responsibility of the ordering physician.

Medical Director - Joseph Hackel MD  
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