

Patient: Ima Sample  
Collected: 9/4/2018  
DOB: 9/1/2009

Accession: 20180906-0001  
Received: 9/6/2018  
Completed: 9/6/2018

Ordered by: Diane Farhi, MD

## Pathogens

### Bacterial Pathogens

	Result	Normal
<i>Campylobacter</i>	<dl	<1.00e3
<i>C. difficile</i> , Toxin A	<dl	<1.00e3
<i>C. difficile</i> , Toxin B	<dl	<1.00e3
Enterohemorrhagic <i>E. coli</i>	<dl	<1.00e3
<i>E. coli</i> O157	<dl	<1.00e3
Enteroinvasive <i>E. coli</i> /Shigella	<dl	<1.00e2
Enterotoxigenic <i>E. coli</i> LT/ST	<dl	<1.00e3
Shiga-like Toxin <i>E. coli</i> stx1	<dl	<1.00e3
Shiga-like Toxin <i>E. coli</i> stx2	<dl	<1.00e3
<i>Salmonella</i>	<dl	<1.00e4
<i>Vibrio cholerae</i>	<dl	<1.00e5
<i>Yersinia enterocolitica</i>	<dl	<1.00e5

### Parasitic Pathogens

	Result	Normal
<i>Cryptosporidium</i>	<dl	<1.00e6
<i>Entamoeba histolytica</i>	<dl	<1.00e4
<i>Giardia</i>	3.75e2	<5.00e3

### Viral Pathogens

	Result	Normal
Adenovirus 40/41	<dl	<1.00e10
Norovirus GI/II	<dl	<1.00e7

**H. pylori**

	Result		Normal
<i>Helicobacter pylori</i>	<b>3.5e4</b>	<b>High</b>	<1.0e3
Virulence Factor, babA	<b>Positive</b>		Negative
Virulence Factor, cagA	<b>Negative</b>		Negative
Virulence Factor, dupA	<b>Negative</b>		Negative
Virulence Factor, iceA	<b>Negative</b>		Negative
Virulence Factor, oipA	<b>Negative</b>		Negative
Virulence Factor, vacA	<b>Negative</b>		Negative
Virulence Factor, virB	<b>Positive</b>		Negative
Virulence Factor, virD	<b>Negative</b>		Negative

**Normal Bacterial Flora**

	Result		Normal
<i>Bacteroides fragilis</i>	<b>8.0e10</b>		1.60e9 - 2.50e11
<i>Bifidobacterium spp.</i>	<b>4.2e11</b>		>6.70e7
<i>Enterococcus spp.</i>	<b>4.8e5</b>		1.9e5 - 2.00e8
<i>Escherichia spp.</i>	<b>2.1e7</b>		3.70e6 - 3.80e9
<i>Lactobacillus spp.</i>	<b>6.7e7</b>		8.6e5 - 6.20e8
<i>Clostridium spp.</i>	<b>9.83e5</b>		1.20e3 - 1.00e6
<i>Enterobacter spp.</i>	<b>1.85e8</b>	<b>High</b>	1.00e6 - 5.00e7

**Phyla Microbiota**

	Result		Normal
<i>Bacteroidetes</i>	<b>5.19e12</b>	<b>High</b>	8.61e11 - 3.31e12
<i>Firmicutes</i>	<b>7.40e10</b>		5.70e10 - 3.04e11
<i>Firmicutes:Bacteroidetes Ratio</i>	<b>0.01</b>		<1.00

**Opportunistic Bacteria**

<b>Additional Dysbiotic/Overgrowth Bacteria</b>	Result	Normal
<i>Bacillus spp.</i>	<b>1.04e4</b>	<1.50e5
<i>Enterococcus faecalis</i>	<b>3.65e2</b>	<1.00e4
<i>Enterococcus faecium</i>	<dl	<1.00e4
<i>Morganella spp.</i>	<dl	<1.00e3
<i>Pseudomonas spp.</i>	<dl	<1.00e4
<i>Pseudomonas aeruginosa</i>	<dl	<5.00e2
<i>Staphylococcus spp.</i>	<dl	<1.00e4
<i>Staphylococcus aureus</i>	<b>9.67e0</b>	<5.00e2
<i>Streptococcus spp.</i>	<b>4.10e2</b>	<1.00e3

**Potential Autoimmune Triggers**

	Result	Normal
<i>Citrobacter spp.</i>	<dl	<5.00e6
<i>Citrobacter freundii</i>	<b>2.04e5</b>	<5.00e5
<i>Klebsiella spp.</i>	<dl	<5.00e3
<i>Klebsiella pneumoniae</i>	<dl	<5.00e4
<i>M. avium subsp. paratuberculosis</i>	<dl	<5.00e3
<i>Prevotella copri</i>	<dl	<1.00e7
<i>Proteus spp.</i>	<dl	<5.00e4
<i>Proteus mirabilis</i>	<dl	<1.00e3

**Fungi/Yeast**

	Result	Normal
<i>Candida spp.</i>	<b>1.01e2</b>	<5.00e3
<i>Candida albicans</i>	<b>1.42e2</b>	<5.00e2
<i>Geotrichum spp.</i>	<dl	<3.00e2
<i>Microsporidium spp.</i>	<dl	<5.00e3
<i>Rodotorula spp.</i>	<dl	<1.00e3

**Viruses**

	Result	Normal
<i>Cytomegalovirus</i>	<dl	<1.00e5
<i>Epstein Barr Virus</i>	<dl	<1.00e7

**Parasites**

<b>Protozoa</b>	Result	Normal
<i>Blastocystis hominis</i>	<b>1.98e3</b>	<2.00e3
<i>Chilomastix mesnili</i>	<b>&lt;dl</b>	<1.00e5
<i>Cyclospora spp.</i>	<b>&lt;dl</b>	<5.00e4
<i>Dientamoeba fragilis</i>	<b>&lt;dl</b>	<1.00e5
<i>Endolimax nana</i>	<b>&lt;dl</b>	<1.00e4
<i>Entamoeba coli</i>	<b>&lt;dl</b>	<5.00e6
<i>Pentatrichomonas hominis</i>	<b>&lt;dl</b>	<1.00e2

<b>Worms</b>	Result	Normal
<i>Ancylostoma duodenale</i>	<b>Not Detected</b>	Not Detected
<i>Ascaris lumbricoides</i>	<b>Not Detected</b>	Not Detected
<i>Necator americanus</i>	<b>Not Detected</b>	Not Detected
<i>Trichuris trichiura</i>	<b>Not Detected</b>	Not Detected
<i>Taenia spp.</i>	<b>Not Detected</b>	Not Detected

**Intestinal Health**

<b>Digestion</b>	Result	Normal
Elastase-1	<b>407</b>	>200 ug/g
Steatocrit	<b>7</b>	<15 %

<b>GI Markers</b>	Result	Normal
b-Glucuronidase	<b>2178</b>	<2486 U/mL
Occult Blood - FIT	<b>0</b>	<10 ug/g

<b>Immune Response</b>	Result	Normal
Secretory IgA	<b>1188</b>	510 - 2010 ug/g
Anti-gliadin IgA	<b>54</b>	0 - 157 U/L

<b>Inflammation</b>	Result	Normal
Calprotectin	<b>113</b> <span style="margin-left: 100px;"><b>High</b></span>	<50 ug/g

<b>Add-on Test</b>	Result	Normal
Zonulin	<b>32.4</b>	<107 ng/g

**Antibiotic Resistance Genes, phenotypes**

<b>Helicobacter</b>		<b>Result</b>		<b>Expected Result</b>	
<b>Clarithromycin</b>		<b>Positive</b>		Absent	
A2142C	Absent	A2142G	Absent	A2143G	<b>Present</b>
<b>Fluoroquinolones</b>		<b>Positive</b>		Absent	
gyrA N87K	Absent	gyrA D91N	<b>Present</b>	gyrA D91G	Absent
gyrB S479N	Absent	gyrB R484K	Absent		

**Antibiotic Resistance Genes, genotypes**

**Universal Microbiota Resistance Genes**

<b>b-lactamase</b>	<b>Negative</b>				<b>Absent</b>	
--------------------	-----------------	--	--	--	---------------	--

TEM-70	Absence	CTXM3	Absence	SHV-24	Absence
VEB-1	Absence	OXA-30	Absence	CTXM35	Absence
toho-3	Absence	CTXM63	Absence	PER-1	Absence
PER-2	Absence	GES-3	Absence	NDM-1	Absence

<b>Fluoroquinolones</b>	<b>Negative</b>				<b>Absent</b>	
-------------------------	-----------------	--	--	--	---------------	--

qnrA2	Absence	qnrB	Absence
-------	---------	------	---------

<b>Macrolides</b>	<b>Positive</b>				<b>Absent</b>	
-------------------	-----------------	--	--	--	---------------	--

ermA	Absence	ermB	Presence	ermC	Absence
mefE	Presence				

<b>Vancomycin</b>	<b>Negative</b>				<b>Absent</b>	
-------------------	-----------------	--	--	--	---------------	--

vanA1	Absence	vanA2	Absence	vanB	Absence
vanC	Absence				