



Comparison of Popular Stool Tests

	Genova GI Effects	Doctor's Data CSAP	Diagnostic Soltns. GI-MAP	uBiome Gut Explorer
Cost	\$479	\$385	\$340	\$89
TECHNIQUE				
Culture-based	✓	✓	✗	✗
Molecular	✓ (targeted PCR)	✗	✓ (qPCR)	✓ (16S)
BACTERIA				
<i>Akkermansia muciniphila</i>	✓	✗	✗	✓
<i>Alistipes spp.</i>	✗	✗	✗	✓
<i>Anaerostipes spp.</i>	✗	✗	✗	✓
<i>Anaerotruncus colihominis</i>	✓	✗	✗	✓
<i>Bacillus spp.</i> (culture only)		✗	✓	✓
<i>Bacteroides spp.</i>	✓	(culture only)	(fragilis)	✓
<i>Barnesiella spp.</i>	✓	✗	✗	✓
<i>Bifidobacterium spp.</i>	✓	(culture only)	✗	✓
<i>Bilophila spp.</i>	✗	✗	✗	✓
<i>Blautia spp.</i>	✗	✗	✗	✓
<i>Butyrivibrio spp.</i>	✓	✗	✗	✓
<i>Campylobacter spp.</i> (add on)		✗	✓	(SG)*
<i>Citrobacter spp.</i>	✗	(culture only)	✓	✗
<i>Clostridium spp.</i>	✓	(culture only)	✓	✓
<i>C. difficile</i> toxins	✗	✗	✓	✗
<i>Collinsella spp.</i>	✓	✗	✗	✓
<i>Coprococcus spp.</i>	✓	✗	✗	✓
<i>Desulfovibrio spp.</i>	✓	✗	✗	✓
<i>Dorea spp.</i>	✗	✗	✗	✓
<i>Escherichia coli</i> (add on)		(culture only)	✓	✗
<i>Enterobacter spp.</i>	✗	✗	✓	✓
<i>Enterococcus spp.</i>	✗	(culture only)	✓	✓
<i>Eubacterium spp.</i>	✗	✗	✗	✓
<i>Faecalibacterium prausnitzii</i>	✓	✗	✗	✓
<i>Fusobacterium spp.</i>	✓	✗	✗	✓
<i>Klebsiella spp.</i> (culture only)		(culture only)	✓	✓
<i>Lachnospira spp.</i>	✗	✗	✗	✓
<i>Lactobacillus spp.</i>	✓	(culture only)	✓	✓

<i>Methanobrevibacter smithii</i>	✓	✗	✗	✓
<i>Morganella spp.</i>	✗	✗	✓	✗
<i>Mycobacterium paratuberculosis</i>	✗	✗	✓	✗
<i>Odoribacter spp.</i>	✓	✗	✗	✓
<i>Oxalobacter formigenes</i>	✓	✗	✗	✓
<i>Pseudomonas spp.</i>	✗	(culture only)	✓	✓
<i>Prevotella spp.</i>	✓	✗	✓	✓
<i>Proteus spp.</i>	✗	(culture only)	✓	?
<i>Pseudobutyrvibrio spp.</i>	✗	✗	✗	✓
<i>Pseudoflavonifractor spp.</i>	✓	✗	✗	✓
<i>Roseburia spp.</i>	✓	✗	✗	✓
<i>Ruminococcus spp.</i>	✓	✗	✗	✓
<i>Salmonella spp.</i>	✗	✗	✓	(SG)
<i>Staphylococcus spp.</i>	✗	(culture only)	✓	✓
<i>Streptococcus spp.</i>	(culture only)	(culture only)	✓	✓
<i>Veilonella</i>	✓	✗	✗	✓
<i>Vibrio cholerae</i>	✗	✗	✓	(SG)
<i>Yersinia enterocolitica</i>	✗	✗	✓	?
BACTERIAL DIVERSITY	(inaccurate)**	✗	✗	✓

FUNGI/YEAST

<i>Candida spp.</i>	(culture only)	(culture only)	✓	✗
<i>Geotrichum spp.</i>	✗	(culture only)	✓	✗
<i>Microsporidium spp.</i>	✗	✗	✓	✗
<i>Rodoturula spp.</i>	(culture only)	✗	✓	✗

VIRUSES

<i>Cytomegalovirus</i>	✗	✗	✓	✗
<i>Epstein Barr Virus</i>	✗	✗	✓	✗
<i>Adenovirus</i>	✗	✗	✓	✗
<i>Norovirus</i>	✗	✗	✓	✗

PARASITES

<i>Blastocystis hominis</i>	✓	✓	✓	✗
<i>Chilomastix mesnili</i>	?	?	✓	✗
<i>Cryptosporidium</i>	✓	✓	✓	✗
<i>Cyclospora spp.</i>	?	?	✓	✗
<i>Diantamoeba fragilis</i>	✓	✓	✓	✗
<i>Endolimax nana</i>	✓	✓	✓	✗
<i>Entamoeba histolytica</i>	✓	✓	✓	✗
<i>Giardia</i>	✓	✓	✓	✗
<i>H pylori</i>	(add on)	✗	✓	✗
<i>H pylori virulence factors</i>	✗	✗	✓	✗
<i>Pentachomonas hominis</i>	?	?	✓	✗
<i>Worms</i>	(add on)	✓	✓	✗

DIGESTION & ABSORPTION

Pancreatic elastase	✓	✓	✓	✗
Protein breakdown	✓	✓	✗	✗
Fecal fat / steatocrit	✓	✓	✓	✗
Vegetable fibers	✗	✓	✗	✗
Carbohydrates	✗	✓	✗	✗
INFLAMMATION & IMMUNOLOGY				
Calprotectin	✓	✓	✓	✗
Lactoferrin	(add on)	✓	✗	✗
Secretory IgA	✓	✓	✓	✗
Eosinophil protein X	✓	✗	✗	✗
Anti-gliadin IgA	✗	✗	✓	✗
Lysozyme	✗	✓	✗	✗
WBCs	✗	✓	✗	✗
Mucus	✗	✓	✗	✗
Zonulin	✗	✗	(add on, unreliable) ⁺	✗
GUT ENVIRONMENT				
Beta-glucuronidase	✓	✗	✓	✗
Short-chain fatty acids	✓ ⁺⁺	✓ ⁺⁺	✗	✗
Occult blood	✗	✓	✓	✗
Fecal pH	✗	✓	✗	✗
RBCs	✗	✓	✗	✗
OTHER				
Antibiotic resistance	✗	✗	(not very useful) [^]	✗

* SG indicates that this microbe may only be available on the SmartGut clinician report, and not on uBiome Explorer or uBiome raw data csv

** Genova GI Effects diversity is not calculated by a well-established metric of gut diversity and relies on estimating diversity from the select probes that it uses for targeted PCR.

⁺Zonulin has been shown to fluctuate greatly from day-to-day, and is not a reliable measure of gut permeability

⁺⁺ Fecal short-chain fatty acids (SCFAs) are not a reliable measure of SCFA production. Amount excreted depends on absorption, cross-feeding, etc.

[^]The mere presence of antibiotic resistance genes does not mean that they are actually being expressed. qPCR of bacterial DNA cannot evaluate gene expression.