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Microbiome test kit

Individual evaluation:

\'IOME

VIOME

2020 - Rank 4 of 5



Author: Stefanie Wiesshak

Stefanie Wisshak worked as a technical assistant in microbiology and biochemistry and also studied geosciences at the University of Stuttgart. Today she offers freelance copywriting, editing and design.



Academic supervison:Dr. Kristin Neumann

Author & Co-Founder MyMicrobiome.info

Developed the first and only standard for Microbiome friendly cosmetics and personal care products and also probiotic food supplements.

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The US American company VIOME sells two testkits (Gut Intelligence and the lately launched Health Intelligence). Health Intelligence comes with a blood test together with the stool test and allows insights into human and mitochondrial gene expression. For our assessment, we bought Gut Intelligence. The company showed no interest whatsoever in our assessment and requests remained unanswered.

The company was not yet included in our of first evaluation in 2018

Evaluation criteria:





1. Sideshow assessment

Theoretically, the test is available internationally, but not in every country (availability: +), and can be purchased directly over the webpage, but also over other platforms like amazon.com (not for Germany) (order: +). In April 2020, the price was 120,95 EUR, but seems to change often (price: +/-).

Website, evaluation, and all communication is in English language only, apart from the instruction, which is available in French and German on the website (quite hard to find, however) (language of website: -).

The instruction is printed very little on brown background and hard to read (-). On the website is a German instruction, too, but it is a bit hard to find. The sample jar has a handy size and stands alone (+). The kit comes with a collecting paper for the toilet seat (+). The sample is collected with a stable spoon from three different sites and filled in the sample jar with stabilizer (+). The wide jar opening makes also the filling of stool type Bristol 2 convenient (+). The spoon can be left in the jar, too (+). Afterwards, the sample has to be shaken for 30 seconds and hold still for another 30 seconds three times in a row.

An envelope for re-sending is enclosed, the fee however, has to be paid by the client (shipping: -). The shipping to the USA took 12 days and costs 16 EUR. The sample is to be registered in the dashboard.

When setting up the account, a questionnaire has to be filled in. The evaluation time was announced with 6 weeks and took 7 weeks in our case (evaluation time: +/-).

2. Assessment quality of methods of analysis and evaluation

The sample is hold by a stabilizer from the beginning (stabilization: +) If the testkit does always come with a blank sample, remains unanswered (blank sample: +/-). After preparation of the sample, it is analyzed by meta transcription analysis (method of identification: ++) Allocations are made on strain level, mostly (taxonomic level: ++).

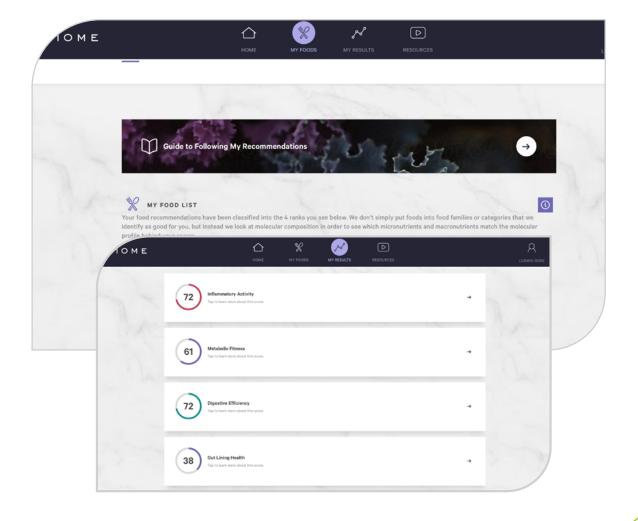
The currently worldwide available molecular data work as genome database (+). The personal outcome is put together with the help of a company-based knowledge database. What remains unclear is the number of scientific studies the evaluation is based on (+/-). For reverence values, the data of other tested persons are used and compared via pattern recognition; the number of datasets remains open, too (+/-).



There is a questionnaire on general lifestyle habits (e.g. Sports) and it is pretty detailed, all in all. It also collects information on the last three day's diet (questionnaire: +). Both the dashboard and the PDF format results point out that the analysis does not replace medical consultation. This disclaimer is missing on the general website (information lifestyle product: +/-).

3. Assessment results

The results are available in the personal account on the webpage, via app and as a PDF file (output format: +). In our evaluation, we focused on the dashboard. The dashboard is very clearly structured (structure +). The start page gives information on the status of the sample. After 90 days, clients receive a call for re-testing.





The results (My results) are presented in so-called pathways, describing the biochemical activities in the test person's gut and their effects. For a layperson, the layout is hard to understand (understandability: +/-).

The alignment to the pathways depends on kind and amount of the sequenced RNA that we first know from what microbe it comes and second, what biochemical substances it produces. A direct connection between involved microbes and pathways is missing, however. The dashboard's information density is comparatively low. The main page of VIOME, outside the dashboard, contains more information (Science / Get Help / Blog / News). Dashboard and main page are connected by links, at least. The sub-page resources contain a lot of information, but it is exclusively in the form of short videos and without correlation to the personal results. (Scientific derivation: +/-)

The pathways in the personal dashboard come with advice weather action is required and some additional information. Here, also some links to underlying scientific literature can be found, without, however, specifically linking the exact source to claims. The client would have to search for the right source by himself (references: + / -).

The complete list of microbes can be found on a subpage, but is lacking descriptions of the microbes and their functions or information on their amount in form of percentage (list of microbes: -). This makes the controllability very limited.

The following pathways of biochemical activities in the gut are examined:

(In brackets the results of the analysis)

- Inflammatory Activity (needs improvement)
- Uric Acid Production Pathways (needs improvement)
- Salt Stress Pathways (needs improvement)
- TMA Production Pathways (needs improvement)
- Digestive Efficiency (good)
- Protein Fermentation (good)
- Overall Gas Production (good)
- Flagellar Assembly Pathways (good)
- Putrescine Production Pathways (good)
- Oxalate Metabolism Pathways (good)
- Bile Acid Metabolism Pathways (good)
- Metabolic Fitness (average)
- Intestinal Barrier Health (average)
- Butyrate Production Pathways (average)
- LPS Biosynthesis Pathways (average)



- Methane Gas Production Pathways (average)
- Sulfide Gas Production Pathways (average)
- Ammonia Production Pathways (average)
- Biofilm, Chemotaxis and Virulence Pathways (average)

The informative level of the results is good regarding the main issue of the test person (Leaky Gut Syndrome).

Result: Average rate of Butyrate synthesis, no bifido bacteria listed (so probably not found), average state of gut mucosa of matches with test person.

Another page sums up nutrition recommendations, split up into food that should be avoided or limited, food that is allowed and food that is beneficiary (superfoods). Intolerances are obviously not taken into account, here. The various foods are nicely layouted with icons that hold further information and explanation when clicking (not all). Partly, the information includes modes of action of the microbes. The recommended amounts of intake are surprising. The tips for preparation of the food are quite informative. All in all, it is hard for the client to work out a personal meal plan. A recommendation for a dietary change can be found under My Foods/ Introduction. It would make more sense here, to have recommendations on specific meals. For further questions, the client can use the chat function within the dashboard that works with artificial intelligence (Vie). A personal consultant is not available (nutrition recommendations: +/-).

A subpage holds recommendations for food supplements with a direct link to the product page on amazon.com. It remains open if the products are checked. We see the linking to amazon pretty critically (affiliate marketing?), especially as there is no information if the products are checked.

Report outside of the dashboard:

There are two PDF files: Recommendations and results. The results file equals the contents of My-Results in the dashboard (All My Scores, My Active Microbes) and contains a brief description of the method.

The recommendation file equals the information that is rather scattered in the dashboard and seems to be even more stringent. However, the information on the respective foods is shortened in this format. Also, the process of dietary change can be put together much easier here. Still, the practicability remains to be seen, in our opinion. The presentation in the app follows the structure of the dashboard and is optimized for tablet, presumably.



Results VIOME:

	Rank 1: MyBioma	Rank 2: BIOMES	Rank 3: Atlas Biomed	Rank 4: VIOME	Rank 5: Elsavie
Excellent (++)	0	0	0	2	0
Good (+)	16	14	13	8	10
Potential to improve (+/-)	7	9	6	9	10
Improvement strongly recommended (-)	0	0	4	3	4
Grade	1,30	1,39	1,61	1,63	1,75