



Microbiome test kit

Individual evaluation:



myBioma

2020 - **Rank 1** of 5



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Stefanie Wiesshak 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 supervision:

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.

www.MyMicrobiome.info

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Microbiome test kits – a thorough checkup

Evaluation myBioma, October 2020



[myBioma](#) is a relatively young start up from Vienna, Austria and sells an analysis kit (Discover the universe within you).

The company was not yet included in our [first evaluation in 2018](#).

Evaluation criteria:



excellent (++)



good (+)



potential to
improve (+/-)



improvement strongly
recommended (-)

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1. Sideshow assessment

The test is shipped Europe-wide (**availability: +**) and can be ordered over the MyBioma website (**order: +**). The price is 149,90 EUR including shipping costs worldwide (**price: +**). The website is available in German and English (**website language: +/-**).

The instruction was small lettered but ok to read and was improved in the meantime (**+**). Also, the website contains an instruction. The sample jar is very narrow and does not stand on its own (**-**). The set comes with a collecting paper (**+**). The sample is to be collected with a featured swab on three different sites (**+**). After that, the swab is stirred into the DNA stabilizer for 30 seconds, broken at the predetermined breaking point and left in the jar (**+**). The method of collection is difficult with stool type Bristol 2 (**-**).

A stamped, self-addressed envelope for re-sending is enclosed (**shipping: +**). The sample can be activated via app or online at activate.mybioma.com. The evaluation time was announced with 4 to 6 weeks and took about 6 weeks in our case (**evaluation time: +**).

2. Assessment quality of methods of analysis and evaluation

The sample is hold in a stabilizer from the beginning (**stabilizer: +**). A blank sample for quality control is always included (**blank sample: +**). After preparation, the stool is analyzed by 16S-rRNA gene sequencing technique (**method of identification: +/-**). The sample is aligned to the level of species, but due to the method of identification, an alignment on strain level is not possible (**taxonomic level: +/-**).

Quality of databases: 2x (**+**), 1x (**+/-**) 📁 (**Databases: +**)

The webpage itself does not hold any information on the databases used for matching of the identified sequences. An inquiry showed that two databases are used: Greengenes: (< 1 million 16S rRNA gene sequences), and Silva (<4 million rRNA gene sequences). Both databases are of high quality and quantity (**+**). The personal profile is compiled by a company-owned knowledge database on the base of over 3.000 publications on the matter (**+**). It is not clear which database is used for the reverence values and what the scope of that database is (**+/-**).

A questionnaire is to be filled in when activating the analysis kit, but it is not very profound, in our opinion (**questionnaire: +/-**). Both the website (a bit hidden under “purpose”), the app and the PDF file include a disclaimer, saying that the analysis does not replace medical consultation. It would be better, however, to place that disclaimer so that the client finds it before purchasing the product (**information lifestyle product: +/-**).

MyBioma is the only provider that got itself certified as provider for medical products. The product, however, is not certified so far due to lacking regulations.

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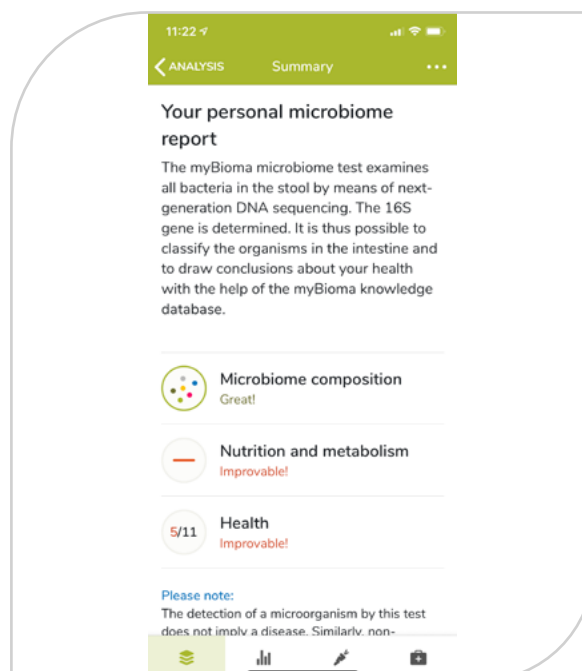
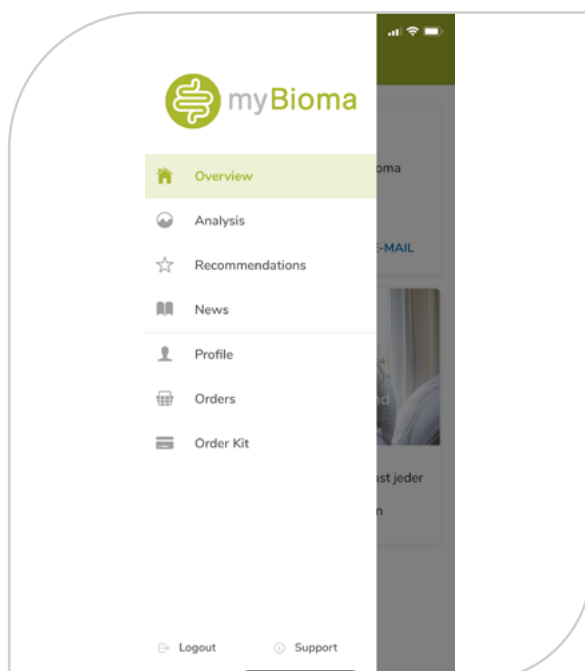
3. Assessment results

The results are displayed in the app and as PDF file (**output format: +**). All in all, the presentation of the data has a clear structure (**structure +**).

There is a survey with a short explanation on the analysis of the three main categories microbial composition, nutrition and metabolism of intake, and health. The categories seem consistent and understandable for laypersons (**understandability: +**). Then the webpage gives a detailed description of the sub-categories, partly naming the associated bacteria and being part of the analysis.

Here, the percentage of prevalence is not mentioned and is only given for the five most dominant strains of bacteria. Important explanations and first recommendations are given mostly directly with the results or are linked to the respective chapter (e.g. regarding recommendations) (**scientific derivation: +**).

A complete list of microbes found can be requested separately (**list of microbes: +/-**). The report features the underlying scientific literature at the end of the PDF file (**references: +**).



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The results are put into the following categories and subcategories:

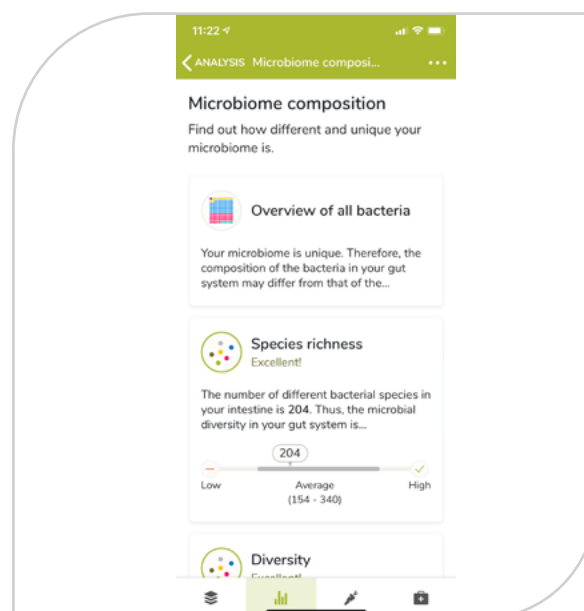
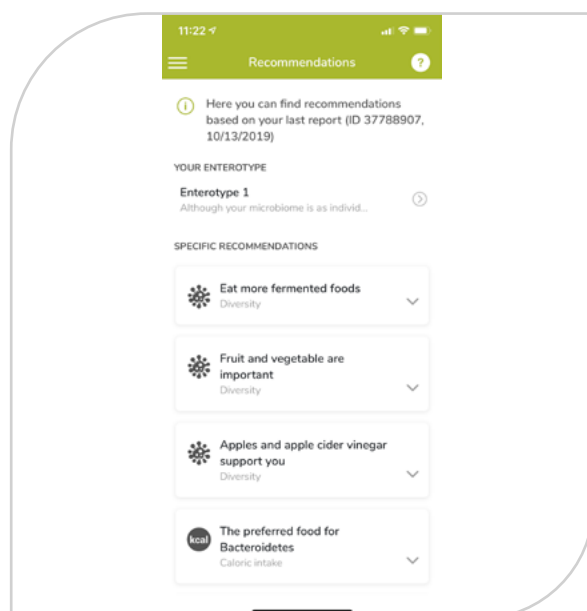
(In brackets the results of the analysis)

1. Microbial composition

- Survey on the five dominating strains in the human body with personal share compared to the reference values. (Actinobacteria 0,29 %, Bacteroidetes 11,05 %, Firmicutes 47,37 %, Proteobacteria 34,61 %, Verrucomicrobia 6,07 %)
- Biodiversity in comparison to average of population (204 strains of bacteria, excellent)
- Diversity in comparison to average of population (Shannon-Index 5,05, excellent)
- Similarity of strains in comparison to average of population ((Pielou-Index 0,66, excellent)
- Probiotic bacteria (excellent, apart from Bifidobacteria)

2. Nutrition and metabolism of intake

- Enterotype (1)
- Caloric intake (ration firmicutes to Bacteroidetes in comparison to average of population with a high 4.3, but improvable)
- Sugar metabolism (good)
- Fat metabolism (good)
- Protein metabolism (good)



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The personal values are compared to the average of population (100%), according to the report. The presentation is not clear, it would make more sense to show the values on a scale. This makes the detailed results contradictory. It is also unclear how the average of population is composed.

3. Health

- Stomach ache (5 bacteria, all normal)
- Flatulence and bloating (5 bacteria, 2 improvable/ 3 normal)
- Constipation (8 bacteria, 2 improvable/ 6 normal)
- Diarrhea (9 bacteria, all normal)
- Gut mucosa (excellent, 11 bacteria, 1 improvable/ 10 normal)
- Irritable bowel syndrome (good with small potential for improve, 15 bacteria, 2 improvable/ 13 normal)
- Gut-brain axis = stress management (excellent, 14 bacteria, 1 improvable/ 13 normal)
- Gut-heart axis (good with small potential for improve, 8 bacteria, 2 improvable/ 6 normal)
- Gut-liver axis (excellent, 16 bacteria, 1 improvable, 15 normal)
- Gut-skin axis (good with small potential for improve, 7 bacteria, 2 improvable/ 5 normal)
- Metabolic syndrome (excellent, 11 bacteria, all normal)
- Insulin balance (good with small potential for improve, 15 bacteria, 2 improvable/ 13 normal)
- Kidney stones (excellent, 3 bacteria, all normal)
- Gallstones (good with small potential for improve, 6 bacteria, 2 improvable/ 4 normal)
- Joint health (good with small potential for improve, 10 bacteria, 3 improvable/ 7 normal)

The informative level of the results is not good regarding the main issue of the test person (Leaky Gut syndrome).

Results: Butyrate not separately analyzed (*Akkermansia muciniphila* high; *Faecalibacterium prausnitzii* normal), share of bacteria protecting the mucosa is analyzed as excellent 🏆 does not match with test person.

„However, I talked to Barbara Sladek, the founder of MyBioma, and she clearly sees a diseased state in the analysis. A one-hour consultation between her and the test person was very helpful concerning the interpretation of the results. I would strongly recommend to take personal consultation in case the test person has severe problems.“ (Dr. Kristin Neumann)

The results are followed by a list of recommendations. They start off with the information that not all recommendations might match the person and that intolerances and personal preferences are not taken into account. The information and recommendations for the client are nevertheless very worthwhile and come with references. In addition, the client receives general recommendations to diet, sports, sleep, stress, and toxics.

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Moreover, MyBioma offers individual consultancy that walks the client through the results step by step and recommend dietary experts nearby. (nutrition recommendations: +)

A brief explanation and information on the company follows. Also, an extensive 130 references of literature are given. The sources are linked with the general information about the matter, but also with the bacteria identified, which is positive.

Report outside of the dashboard:

The content of app and web are absolutely identical and just layouted differently for technical reasons, so very responsive. The advantage of the app is that the links to the literature are active, what is not the case with the PDF. The app comes also with News, which are blog articles, but not all are accessible via the app. Here, the webpage allows for more information and links.

Results myBioma:



Winner for the best
microbiome test kit 2020



	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

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