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Mikrobiom test kit

Individual evaluation:

elsavie

Elsavie

2020 - **Rank 5** of 5 2018 - **Rank 5** of 5



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

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Elsavie is a trademark of TFTAK (Center of Food and Fermentation Technologies, CFFT) of Estonia. The lab sells a test kit (Health Starts From the Inside) and four additional food supplements over its own web shop. The focus is on fibers, enriched with minerals or antioxidants according to various needs. In our first evaluation in 2018, the company scored last.

Evaluation criteria:





1. Sideshow assessment

The test kit can be purchased at www.elsavie.com (order: +) and is shipped worldwide (availability: +). It is possible to get registered as a re-seller on www.elsavie.com, a list of re-sellers is not available, however. The price is 169,00 EUR (price: -). Also, food supplements can be purchased. The available languages on the website are Estonian and English (website languages: +/-).

Three days prior to the test, the daily food intake is to be documented (+). There is only one option of indicating the stool type with Bristol, but it varied between Bristol 2, 4 and 6 within the three days (+/-). Our test person reported a very extensive questionnaire in the login that took about an hour to be completed. The instructions were easy to read (+). The instruction on the webpage is not so easy to read. The test comes with a collecting paper (+). The featured cotton swab is to be inserted 1 cm at three different sites of the stool and then should be stirred for one minute in the sample jar (+) so that the bottom of the jar is completely covered with the sample. For stool type Bristol 2, the collection of the sample is difficult with this method (-). The sample jar is pretty small and does not stand alone (-). The swab can be broken and remain in the sample jar after taking the sample (+). It came with a predetermined breaking point, but broke above it and had to be shortened with a pincer in order to fit into the jar and to be closed (-). A call to wash one's hands before and after testing is positive (+). The sample jar has to be labelled with a permanent marker (date and time) by the client him- or herself (-).

The test kit comes with a stamped, self-addressed envelope (shipping: +). The client receives a login to activate the test account. The login cannot be accessed simply over the webpage but the client receives a link via email. After logging in, the client has to fill in a questionnaire. The evaluation time was announced with 4 to 6 weeks and took around 4 weeks in our case. However, the client does not receive a message about the evaluation being completed, so he or she has to login and check the status on spec (evaluation time: +/-).

2. Assessment quality of methods of analysis and evaluation

The sample jar comes with a stabilizer (stabilizer: +). A blank sample for quality control is always included (blank sample: +). After preparation, the analysis is conducted by 16S-rRNA gene sequencing technique (method of identification: +/-). The alignment is made on the level of genus, family, species, and strain but due to the method of identification, an alignment on potential exact strain levels is not possible (taxonomic level: +/-).

The webpage does not provide information on the underlying databases. The report only claims that the results are based on sources from science and research (from Estonia and other countries) and that the reference values, the personal values are compared to, are based on a set of values from people with a healthy gut. It remains unclear if this "healthy community" is drawn from own clients' data or an external database. Also, the size of the comparative group is not indicated anywhere. (+/-)



On requesting this information, we were told that three different databases are used and they include information on taxonomic information, description of bacteria and correlation concerning health, along with publications of various origin (+) and information on sequencing. However, the scope of those identification data remains unclear and also if the information on sequencing is based on a publicly accessible database of bigger scope (+/-). We would prefer having this information concerning the analysis communicated more explicitly.

There is a detailed questionnaire in the login area with really in-depth questions (questionnaire: +). It aims after general information, health and nutrition. Moreover, the questionnaire collects information on the intake and symptoms of the previous days and the day of the testing. The answers can be edited. Potential intolerances are not recorded.

In the analysis part, the client finds a disclaimer saying that the test does not represent a medical analysis and is not suitable for diagnosis of infectious diarrhea (further analyses at different labs are recommended for that case). We think that this disclaimer should be found directly at the webpage, ideally in the shop (information lifestyle product: +/-).

3. Assessment results

The only format the results are displayed is by downloading a PDF file (output format: -). First, two files were provided, now it is only one. We evaluated the new version. The report is in English language.

The layout is clear (structure: +). The 17 pages PDF starts off with a brief, general introduction to the gut microbiome and the correlation to nutrition. Before proceeding to the results, general notes follow, including the information that only bacteria were analyzed, the test is no medical analysis, and is not suitable for diagnosing infectious diarrhea.

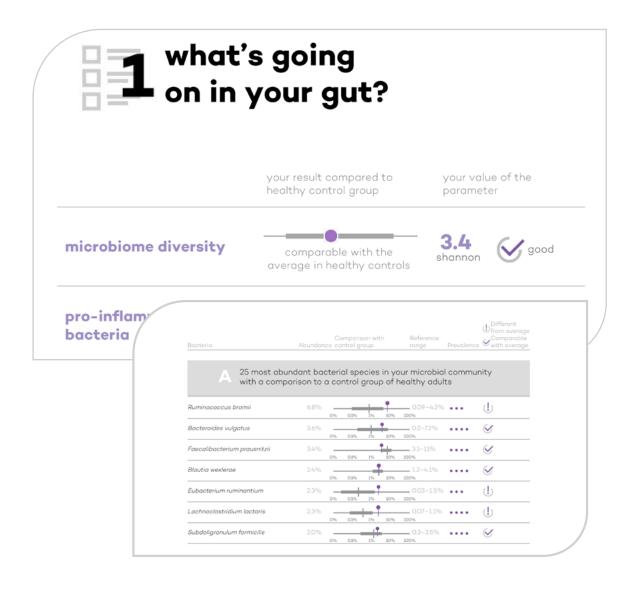
The results are displayed in a structure that is not very clear for laypersons (understandability: +/-). Only the first 6 parameters are in scales that compare reference values to the personal values. It does not feel concise to us that this is not kept for the rest of the parameters. Following the scales, the parameters are briefly explained regarding importance, meaning and possible impacts. This list is continued with further parameters with the same layout, but without personal or reference values.

The nutrition recommendations are really kept short and without any reference to specific effects or shortages (scientific derivation: + / -).



The following parameters are displayed (in brackets the results of the analysis):

- microbiome diversity (good, 111, Shannon-Index 3,4)
- pro-inflammatory bacteria (good, 0,5 %)
- butyrate acid producing bacteria (low, 19 %)
- bacteria associated with protein and fat consumption (good, 7 %)
- bifidobacteria (not found)
- lactobacillus (good, 0,1 %)



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Those are completed by:

- microbiome type (1, Bacteroides)
- The explanation on the enterotype is only referring to enterotype 1 and 2. Enterotype 3 does not seem to exist for TFTAK.
- Firmicutes/Bacteroidetes ratio (good)
- resistant starch degrading bacteria (good)
- asaccharolytic bacteria (good)
- Christensenellaceae family (not found)
- Akkermansia genus (good)
- Alistipes genus (good)
- Prevotella genus (not found, contradicting old report where enterotype 2 was even indicated as additional type)
- your fiber intake (needs attention)
- your digestion indicators (good)

The informative level of the results is <u>good</u> regarding the main issue of the test person (Leaky Gut syndrome).

Result: Low ratio of Butyrate synthesizing bacteria, no indication of bifidobacteria, no explicit information of constitution of gut mucosa of matches test person.

A more detailed, but still short list of recommended foods follows without further explanations (nutrition recommendation: +/-) along with a product recommendation. We doubt that the answers given at the questionnaire have any influence on those recommendations. Personal consultation (in English) by a dietitian is now also available..

A table of fiber contents of various foods follows. It is presented as a comparison between the cooked / baked version and the dry version. A menu suggestion for the day follows – including food supplements by Elsavie.

The file closes with a table of measurements and bacteria found. Those come with a scale of personal values and reference values, as well as an evaluation of the personal status. The list seems to be incomplete. A total list of all microbes found does exist, but is not accessible for private clients. We were allowed a glance at that list. Instead of percentage, the list has a column called "abundance" containing numbers with more than 10 decimal digits. A unit is not indicated anywhere. Even dietitians or physicians would have to inquire into that detail (list of microbes: -).

Our inquiry turned out that the column "abundance" displays the relative quantity of identified bacteria in relation to the total amount of bacteria (calculated as one unity). **Sources of literature are linked nowhere in the entire document (references: -).**



Results Elsavie:

	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