

Lentil-based yogurt alternatives fermented with multifunctional strains of lactic acid bacteria – techno-functional, microbiological, and sensory characteristics

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Figure S1: Questionnaire used for sensory analysis.



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Descriptive Sensory Evaluation



smart protein

Personal Data

Name: Date:

Information

- Please do not smoke and/or drink coffee 1 hour before the test.
- The samples are lentil protein emulsions fermented with lactic acid bacteria. The following traces of allergens may be present: gluten, peanuts, tree nuts, celery, mustard, eggs, milk, sesame, fish, lupin, soya, sulphites, crustaceans, molluscs.
- All information provided is confidential and the results will not be associated with your name.
- The products have been produced under safe and food grade conditions.

Please confirm that (tick the circle)

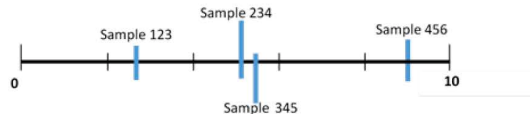
☐ You are aware that the participation in this sensory evaluation is voluntary.

☐ You are aware that products may contain the allergens reported above.

Guidelines

Please taste the samples for the attributes reported in Table 1. In between each sample, please cleanse your palate with water. Following the example below, please place a line on where you estimate the intensity of the attribute. Adding comments is optional.

Example:



Attribute	Description	Intensity
Odour – Overall intensity	The intensity of the odour of the sample.	0 = low, 10 = high
Odour – Yoghurt-like	The odour of plain dairy yoghurt.	0 = none, 10 = extreme
Flavour – Overall intensity	The intensity of the flavour/taste of the sample	0 = low, 10 = high
Flavour - Sour	The basic taste, perceived on the tongue, stimulated by acids, such as citric acid, lactic acid or acetic acid.	0 = none, 10 = extreme
Flavour – Bitter	The basic taste, perceived on the tongue, stimulated by substances like caffeine or quinine	0 = none, 10 = extreme
Flavour - Beany	The flavour of cooked or canned pulses such as beans or lentils.	0 = none, 10 = extreme
Flavour - Yoghurt-like	The flavour of plain dairy yoghurt.	0 = none, 10 = extreme
Flavour - Sour cream-like	The flavour of plain, dairy-based sour cream.	0 = none, 10 = extreme
Mouthfeel - Firmness	The force required to break up the sample with the tongue.	0 = low, 10 = high
Mouthfeel - Smoothness	The degree of melting and dissolving in the mouth, corresponding to creaminess, without the sensation of lumps or particles.	0 = low, 10 = high
Aftertaste	Persistence of the taste in the mouth after swallowing.	0 = none, 10 = extreme

Table 1: Attributes for sensory evaluation, and their descriptions.

Sensory Evaluation Fermented Lentil Protein

Figure S2: Stribeck curves of the samples for a sliding speed from 1×10^{-8} to 1 m/s. Every curve is the average of triplicates. Error bars have been omitted for clarity

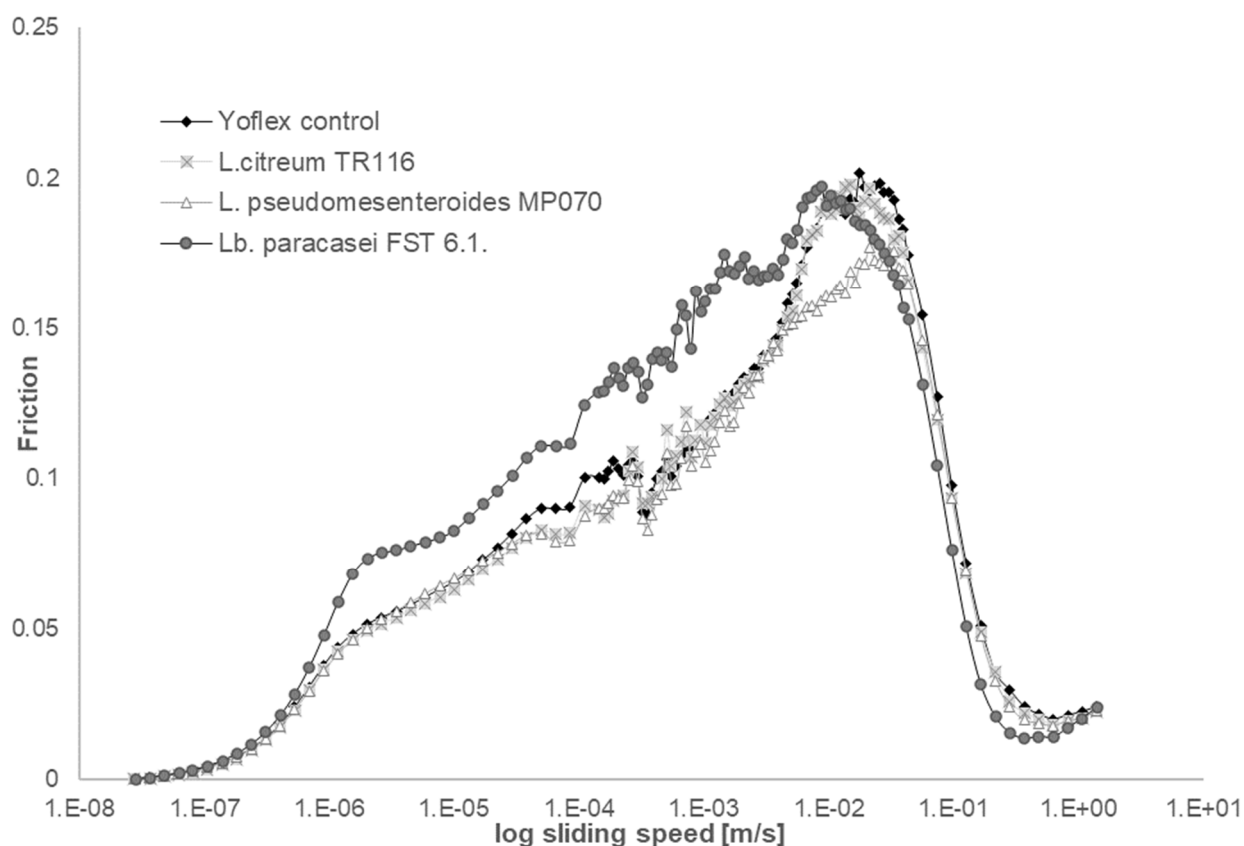


Table S1: Variables calculated from tribological measurements. For definition of variables, see main manuscript, Figure 1.

	Var 1 [-]		Var 2 [-]		Var 3 [-]	
LcTR116	0.114	0.011a	0.092	0.010a	0.203	0.010a
LpMP070	0.11	0.008a	0.086	0.014a	0.178	0.020a
LbpFST6.1	0.053	0.076a	0.112	0.001a	0.197	0.006a
Yoflex control	0.115	0.010a	0.098	0.015a	0.202	0.013a
	Var 4 [m/s]		Var 5 [-]		Var 6 [m/s]	
LcTR116	0.018	0.003a	0.018	0.001a	0.751	0.205ab
LpMP070	0.023	0.007ab	0.018	0.001a	0.633	0.000a
Lbp6.1	0.009	0.000b	0.013	0.001b	0.406	0.036b
Yoflex	0.020	0.004ab	0.02	0.001a	0.633	0.000a

Note: Mean values \pm standard deviation. Values in the same column followed by the same superscript letters are not significantly different ($p > 0.05$).