

**Table S1.** Cluster with representative strains and source of isolation of the yeasts from the spontaneous fermentation at 30 °C and 40 °C after 24 h and 48 h, and from raw milk. NC: Single strain not included in any cluster.

Cluster and representative strain	Isolates	Source of isolation
I <i>Kluyveromyces marxianus</i> MK Y58	MK Y53	40 °C 24 h
	MK Y58	40 °C 48 h
II <i>K. marxianus</i> MK Y41	MK Y41; MK Y42; MK Y43; MK Y44; MK Y45; MK Y46	30 °C 24 h
III <i>K. marxianus</i> MK Y55	MK Y38; MK Y39; MK Y61;	30 °C 24 h
	MK Y63	30 °C 48 h
	MK Y55; MK Y62; MK Y65; MK Y66; MK Y57	40 °C 24 h
IV <i>Candida jadinii</i> MK Y1	MK Y1	30 °C 24 h
	MK Y8; MK Y9; MK Y10; MK Y7	30 °C 48 h
	MK Y11; MK Y12	40 °C 24 h
V <i>C. jadinii</i> MK Y6	MK Y3; MK Y4	30 °C 24 h
	MK Y6	30 °C 48 h
VI <i>C. jadinii</i> MK Y31	MK Y3	30 °C 24 h
	MK Y31	30 °C 48 h
VII <i>Magnusiomyces capitatus</i>	MK Y20; MK Y25; MK Y27; MK Y30; MK Y26; MK Y35; MK Y16; MK Y17; MK Y18; MK Y19	40 °C 48 h
VIII <i>M. capitatus</i>	MK Y54; MK Y56	40 °C 24 h
IX <i>K. marxianus</i> MK Y47	MK Y47; MK Y51	30 °C 48 h
X <i>Pichia kudriavzevii</i> MK Y22	MK Y22	40 °C 24 h
	MK Y24	40 °C 48 h
XI <i>P. kudriavzevii</i> MK Y28	MK Y37	40 °C 24 h
	MK Y28; MK Y29	40 °C 48 h
XII <i>P. kudriavzevii</i> MK Y5	MK Y5; MK Y36	30 °C 48 h
XIII <i>Diutina rugosa</i> MK Y13	MK Y13; MK Y34	40 °C 24 h
XIV <i>Candida inconspicua</i> MK Y52	MK Y52; MK Y64	30 °C 48 h
	MK Y59; MK Y60; MK Y67; MK Y68; MK Y69; MK Y70	Raw milk
XV <i>C. inconspicua</i> MK Y21	MK Y14; MK Y21	40 °C 24 h
NC	<i>K. marxianus</i> MK Y50	40 °C 24 h
	<i>K. marxianus</i> MK Y40	30 °C 24 h
	<i>K. marxianus</i> MK Y48	30 °C 24 h
	<i>C. jadinii</i> MK Y2	30 °C 48 h
	<i>C. jadinii</i> MK Y15	30 °C 24 h
	<i>D. rugosa</i> MK Y32	40 °C 48 h
	<i>D. rugosa</i> MK Y49	30 °C 48 h
	<i>C. inconspicua</i> MK Y23	40 °C 48 h

**Table S2.** Microbial concentration and pH values after 28 days of storage. Different letters in the same raw correspond to significant differences ( $p < 0.05$ ).

	FM-S	FM-B
Lactic acid bacteria (CFU/mL)	$(1.66 \pm 0.44) \times 10^{10b}$	$(8.74 \pm 0.12) \times 10^{9a}$
Yeasts (CFU/mL)	$(4.04 \pm 0.84) \times 10^7$	$(3.43 \pm 0.75) \times 10^7$
Final pH	$3.61 \pm 0.04^a$	$4.09 \pm 0.09^b$