

Table 2. Viability and phytase activities of LAB strains

Isolate type / code	Origin*	V(log cfu/g)**		PA (mm)***			EPA (U/mL)****	
		0 h	24 h	24 h	48 h	96 h	24 h	
1	<i>E. faecium</i> NB32A	CA	4.30	5.93	3.5	4	4	548.2
2	<i>L. casei</i> B21	M	3.54	5.69	3	4	4	594.6
3	<i>L. casei</i> B31A	M	3.99	5.99	4	5	5	682.7
4	<i>L. casei</i> K11	EA	4.41	5.51	3	3	4	487.3
5	<i>L. casei</i> K22	EA	3.92	5.11	3	4	4	506.4
6	<i>L. casei</i> K32	EA	3.72	5.97	3	4	4	635.3
7	<i>L. fermentum</i> B1A	M	3.57	6.93	5	5.5	6	743.7
8	<i>L. pentosus</i> B1	M	4.68	5.54	4.5	5	5	678.5
9	<i>L. pentosus</i> B31	M	4.30	7.69	4	5	5	763.0
10	<i>L. pentosus</i> B33	M	3.96	6.62	5	5.5	7	634.4
11	<i>L. pentosus</i> B33A	M	4.53	6.86	5	7	9	714.7
12	<i>L. lactis</i> B11	CA	4.96	5.46	4	5	5	463.6
13	<i>L. lactis</i> B12	CA	4.93	5.48	5	6	6	943.1
14	<i>L. lactis</i> B32	CA	4.46	6.92	5.5	6	8	810.5
15	<i>P. pentosaceus</i> EK1	M	3.80	8.52	6	7.5	11	1285.5
16	<i>P. pentosaceus</i> EK2	M	3.94	5.40	3	3.5	4	559.4
17	<i>P. pentosaceus</i> EK3	M	4.36	5.71	3	4	4	576.3
18	<i>P. pentosaceus</i> K33	EA	3.89	4.90	4	4	5	603.6
19	<i>P. pentosaceus</i> NB1	CA	4.46	5.98	3.5	4	4	497.6
20	<i>P. pentosaceus</i> NB32	CA	3.56	3.60	3	3	4	521.7
21	<i>P. pentosaceus</i> NB34	CA	4.81	6.00	4	4	4	532.8

*CA: Central Anatolia, M: Marmara, EA: Eastern Anatolia, **V: Viability, ***PA: Phytase Activity, ****EPA: Extracellular Phytase Activity

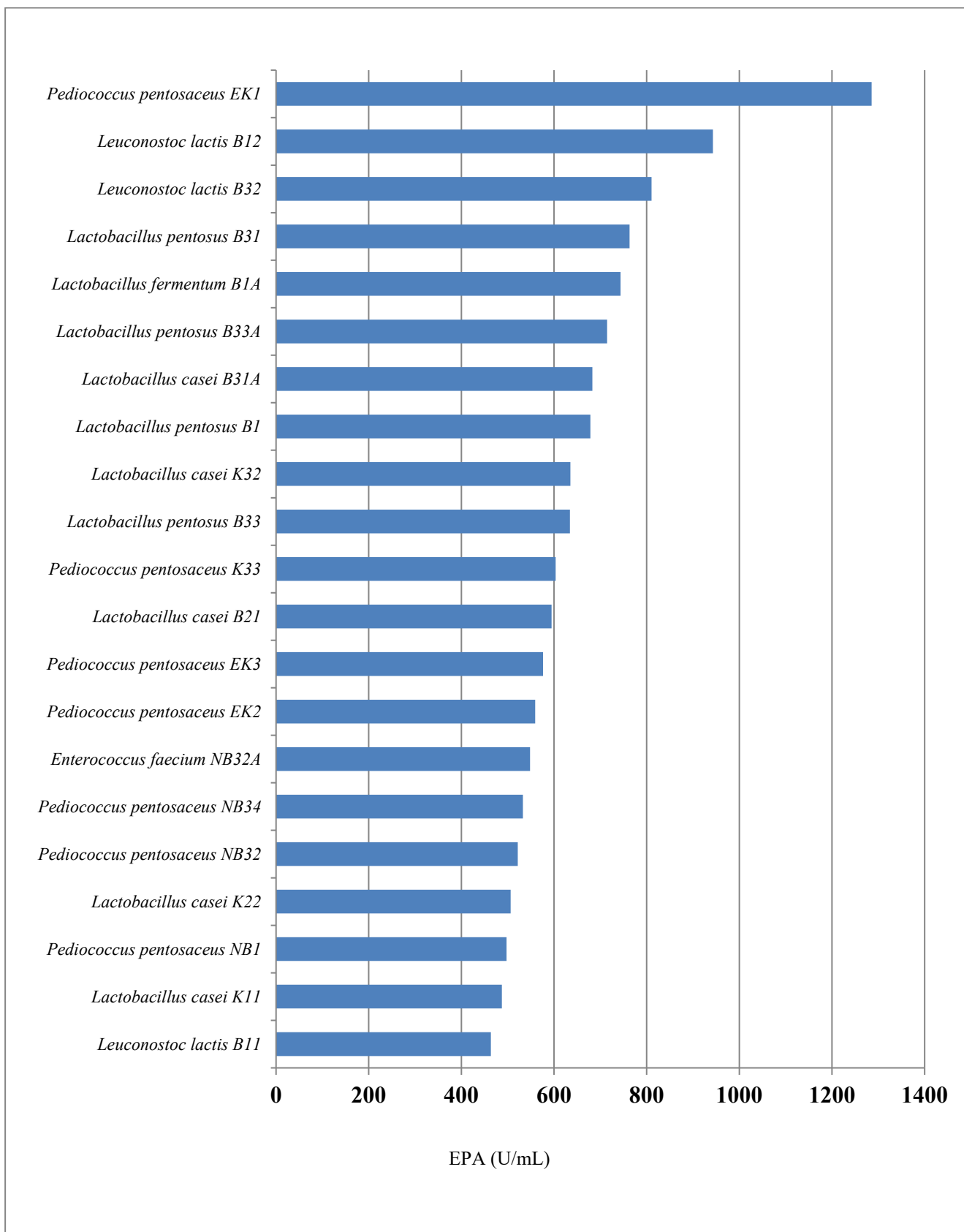


Figure 2. Extracellular phytase activity (EPA) of phytase (+) LAB isolates

Conclusion

In conclusion, the traditionally produced bozas have been found as potential starter culture reservoirs for sourdough fermentation with significantly higher extracellular phytase activities, thus challenging opportunities to lower antinutritional factors, in particular phytic acid (PA) or phytate in the foods for the consumers.

Compliance with Ethical Standard

Conflict of interests: The authors declare that for this article they have no actual, potential or perceived the conflict of interests.

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