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Microencapsulation of *Bifidobacterium animalis* subsp. *lactis* INL1 using whey proteins and dextrans conjugates as wall materials

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1 **Microencapsulation of *Bifidobacterium animalis* subsp. *lactis* INL1 using whey**
2 **proteins and dextrans conjugates as wall materials**

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16 **ABSTRACT**

17 The incorporation of probiotic bacteria to food products is restricted by their
18 instability, so microencapsulation could provide them better protection during storage
19 and gastrointestinal digestion. In this study *Bifidobacterium animalis* subsp. *lactis* INL1
20 was microencapsulated by spray drying using whey proteins isolate (WPI) and dextrans
21 (DX of 6, 70 and 450 kDa) conjugates obtained by Maillard reaction as wall materials.
22 The stability during storage time and temperature, the viability after simulated
23 gastrointestinal digestion and the antioxidant capacity of the microcapsules were
24 assayed. The cell viability was negatively affected by the gastrointestinal digestion and
25 also over the storage time (12 months). Conjugate with DX 6 kDa was the most stable

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