

Supplementary Materials: Immobilized Trienzymatic System with Enhanced Stabilization for the Biotransformation of Lactose

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Table S1. Kinetics of process for biotransformation of lactose in Mozzarella cheese whey at 50 °C using immobilized tri-enzymatic system.

System	Time (h)	Tagatose (%) ¹	Fructose (%) ¹
Soluble enzymes	0	0	0
	1	7	8
	2	10	10
	3	13	13
	4	16	17
	5	19	19
	6	22	21
Immobilized derivatives (sequential use)	0	0	0
	1	10	1
	2	16	7
	3	19	10
	4	21	13
	5	27	19
	6	31	24
Immobilized derivatives (simultaneous use)	0	0	0
	1	11	5
	2	17	8
	3	20	11
	4	25	17
	5	33	24
	6	40	29

¹ Conversion percentage (D-galactose to D-tagatose and D-glucose to D-fructose).

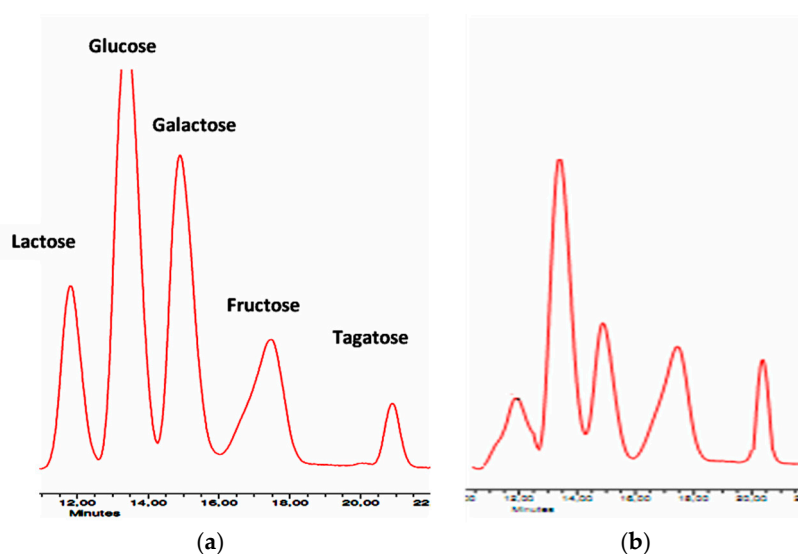


Figure S1. HPLC profile of: (a) Sugar standards; (b) Products from simultaneous lactolysis, glucose and galactose isomerization in Mozzarella cheese whey with the trienzymatic system (single enzyme derivative). Reaction time: 6 h.