

Supplementary material: Detailed qualitative and quantitative (% w/w) composition of all formulations prepared (F1-F8).

	Formulation	Gelatin (%)	Propylene glycol (%)	Lactose (%)	Glycerin (%)	Water (%)	Chitosan (%)	Anhydrous Sodium Sulfate (%)	Lactic Acid Solution 2% w/w (%)
F1	F1.1	20				80			
	F1.2	40				60			
F2	F2.1	40	25			35			
	F2.2	20	25			55			
	F2.3	25	25			50			
	F2.4	30	25			45			
	F2.5	20	15			65			
	F2.6	25	15			60			
	F2.7	30	15			55			
	F2.8	20	10			70			
	F2.9	25	10			65			
	F2.10	30	10			60			
F3	F3.1	25	25	10		40			
	F3.2	25	15	10		50			
	F3.4	20	10	10		60			
	F3.5	25	10	10		55			
	F3.6	30	10	10		50			
	F3.7	20	15	10		55			
	F3.8	30	15	10		50			
	F3.9	20	25	10		45			
F4	F4.1	20	10			60		10	
	F4.2	25	10			55		10	
	F4.3	30	10			50		10	

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	F4.4	20	15		55	10
	F4.5	25	15		50	10
	F4.6	30	15		45	10
F5	F5.1	20		25	55	
	F5.2	20	10	25	45	
	F5.3	25		25	50	
	F5.4	30		25	45	
	F5.5	20		15	65	
	F5.6	25		15	60	
	F5.7	30		15	55	
	F5.8	25	10	15	50	
	F5.9	20	10	10	60	
	F5.10	25	10	10	55	
	F5.11	30	10	10	50	
	F5.12	20	10	15	55	
	F5.13	30	10	15	45	
F6	F6.1	5	10	6.25	78.75	
	F6.2	10	10	12.5	67.5	
	F6.3	15	10	18.75	56.25	
	F6.4	5		6.25	88.75	
	F6.5	10		12.5	77.5	
	F6.6	15		18.75	66.25	
	F6.7	5	10	3.75	81.25	
	F6.8	10	10	7.5	72.5	
	F6.9	15	10	11.25	63.75	
	F6.10	5		3.75	91.25	
	F6.11	10		7.5	82.5	

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	F6.12	15	11.25	73.75	
F7	F7.1			1 (HMW)	99
	F7.2		0.5	1 (HMW)	98.5
	F7.3		0.75	1.5 (MMW)	97.75
	F7.4		0.75	1.5 (MMW)	97.75
	F7.5		1	2 (MMW)	97
	F7.6		1	2 (MMW)	97
	F7.7		1.25	2.5 (MMW)	96.25
	F7.8		1.25	2.5 (MMW)	96.25
	F7.9			3 (HMW)	97
	F7.10		1,5	3 (HMW)	95.5
F8	F8.1	18.5	25	1.5 (MMW)	55
	F8.2	13.5	15	1.5 (HMW)	70
	F8.3	13.5	10	1.5 (HMW)	75
	F8.4	13.5	15	1.5 (MMW)	70
	F8.5	13.5	10	1.5 (MMW)	75

Legend: MMW – medium molecular weight; HMW – high molecular weight