

Appendix A. Supplementary data

Investigating on the calcium binding characteristics of black bean protein hydrolysate

Man Wang[†], Zhaojun Zheng[†], Chunhuan Liu, Hong Sun, Yuanfa Liu*

State Key Laboratory of Food Science and Technology, School of Food Science and Technology, National Engineering Research Center for Functional Food, National Engineering Laboratory for Cereal Fermentation Technology, Collaborative Innovation Center of Food Safety and Quality Control in Jiangsu Province, Jiangnan University, 1800 Lihu Road, Wuxi, Jiangsu 214122, People's Republic of China

*Corresponding author: Yuanfa Liu

Phone: 0510-85876799; Fax: 0510-85876799; E-mail: yfliu@jiangnan.edu.cn

[†] Authors contributed equally

Declarations of interest: none

Table S1 Model coefficients estimated by multiple linear regression for the calcium binding capacity of black bean protein hydrolysate treated with ficin.

Source	Sum of Squares	DF ^a	Mean Square	F Ratio	Prob > F	Significant
Model	1371.414	14	97.958	26.093	< .0001	***
Linear effects						
x_1	24.586	1	24.586	6.549	0.013	*
x_2	526.821	1	526.821	140.330	< .0001	***
x_3	7.132	1	7.132	1.900	0.173	
x_4	287.993	1	287.993	76.713	< .0001	***
Interaction effects						
$x_1.x_2$	90.317	1	90.317	24.058	< .0001	***
$x_1.x_3$	17.631	1	17.631	4.696	0.034	*
$x_2.x_3$	47.386	1	47.386	12.622	0.0008	***
$x_1.x_4$	11.002	1	11.002	2.931	0.092	
$x_2.x_4$	44.648	1	44.648	11.893	0.001	***
$x_3.x_4$	7.449	1	7.449	1.984	0.164	
Squared effects						
x_1^2	0.018	1	0.018	0.005	0.945	
x_2^2	66.707	1	66.707	17.769	< .0001	***
x_3^2	127.730	1	127.730	34.023	< .0001	***
x_4^2	47.261	1	47.261	12.589	0.0008	***
Lack of fit	46.898	10	4.690	1.316	0.2485	
Pure error	174.598	49	3.5632			
Total error	221.496	59				

^a DF, degrees of freedom