Supplementary Table

Table S1: Purification of protease from compost soil isolate *Bacillus subtilis* D3L/1. The statistical significance was $p < 0.05$.

Purification Step	Enzyme solution (mL)	Total Protein (mg)	Total activity (Units)	Sp. activity (Units/mg of protein)	Fold	Yield (%)
Crude Extract	100	178.87	5555	31.05	-	100
$(NH_4)_2 SO_4$ Precipitate	40	29.23	2320	79.37	2.55	41.76
Dialysis	30	17.67	4206	237.62	2.99	75.71
DEAE Cellulose (DE52)	15	4.84	4068	840.49	3.5	73.23
Sephadex G 100	5	1.09	3759	3448.62	4.10	67.66

Table S2: Detection of the type of active compound present in soy protein hydrolyzates through qualitative and quantitative analysis and compared with standard BSA solutions. The statistical significance was $p < 0.05$.

SAMPLE	BIURETE TEST	UV WAVELENGTH	OD	DIL FACTOR	CONC in mg/ml	FORMULA USED
STANDARD BSA (0.5 mg/mL)	POSITIVE	205 nm	0.48	32	0.495	$C = A_{205}/31*l$
		280 nm	0.132	2.5	0.5	
		215 nm	0.18	32		$C= 144 (A_{215}-A_{225})$
		225 nm	0.072	32	0.497	
SPH 3HR	POSITIVE	205 nm	0.445	68	0.976	$C = A_{205}/31*l$
		280 nm	0.135	7		
		215 nm	0.227	40	0.973	$C= 144 (A_{215}-A_{225})$
		225 nm	0.058	40		
SPH F4	POSITIVE	205 nm	0.465	2.5	0.0375	$C = A_{205}/31*l$
		280 nm	0.036	1		
		215 nm	0.244	1.3	0.0378	$C= 144 (A_{215}-A_{225})$
		225 nm	0.042	1.3		
STANDARD BSA 1 mg/mL	POSITIVE	280 nm	0.66	1	1	

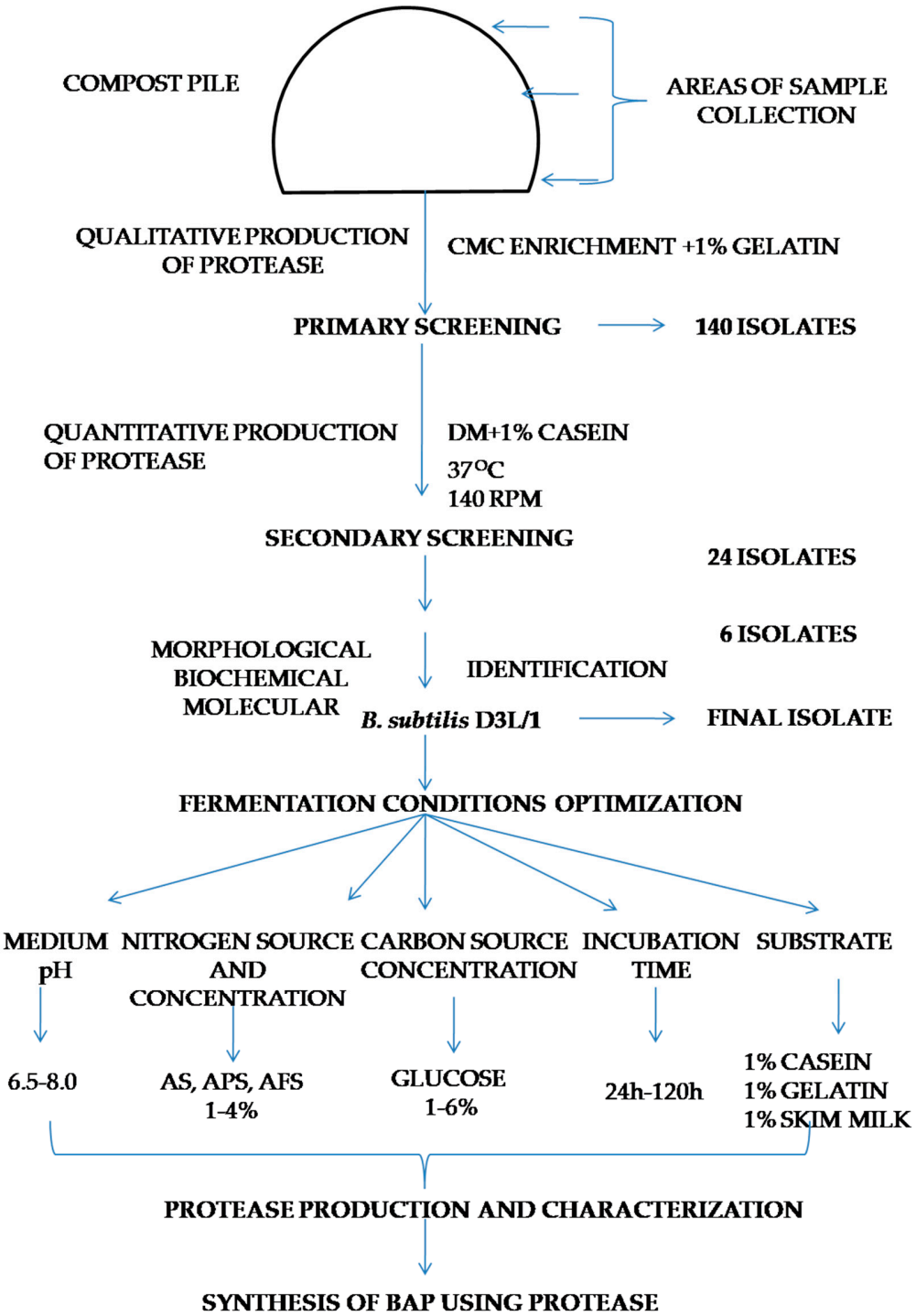


Figure S1. Schematic representation of potent protease producer B. subtilis D3L/1 screening from compost pile, production optimization of B. subtilis D3L/1 protease, characterization and application of B. subtilis D3L/1 protease for bioactive peptide synthesis. Abbreviations: CMC: Carboxy Methyl Cellulose, RPM: Rotation per minute, AS: Ammonium sulfate, APS: Ammonium persulfate, AFS: Ammonium ferrous sulfate, BAP: Bioactive Peptide, are present in this file.