Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary data

Table no. S1. Proximate composition of moringa protein isolate (MPI).

Proximate composition	**(g/100g)**
Moisture	4.0
Ash	1.3
Protein	85.0
Lipid	0.6
Carbohydrate	9.2
Total	**100**

Table no. S2. Aminoacid data of moringa protein hydrolysates after 5h of hydrolysis.

Aminoacid	**Trypsin**	**Pepsin**	**Pancreatin**	**Alcalase**	**Ficin**	**MPH ex-vivo**
Asp	7.41	4.03	7.82	7.75	6.06	4.84
Glu	20.38	22.17	19.82	20.31	23.86	22.0
Ser	3.9	2.89	3.23	3.35	3.31	2.78
Gly	6.64	10.72	8.99	6.82	8.34	7.55
His	4.0	4.91	4.15	4.25	3.57	3.54
Arg	**8.54**	**4.89**	**8.25**	**8.54**	**7.91**	**8.34**
Thr	3.9	2.85	3.53	3.73	3.49	3.4
Ala	4.65	5.02	4.71	5.0	4.63	4.55
Pro	5.06	6.29	5.08	5.4	5.45	6.26
Tyr	2.83	1.9	2.78	2.46	2.29	1.96
Val	6.94	8.69	7.13	7.24	6.77	8.8
Met	3.88	2.99	3.46	3.78	3.68	2.66
Cys	0.522	0.33	0.22	0.38	0.26	0.41
Ile	4.24	4.63	3.97	3.96	3.84	4.04
Leu	6.93	7.19	6.96	7.27	7.2	7.67
Phe	6.43	8.4	6.63	6.63	6.5	8.83
Lys	**3.755**	**2.13**	**3.28**	**3.03**	**2.82**	**2.38**
Arg: Lys	2.27	2.30	2.52	2.82	2.80	3.50

Table no. S3. ACE inhibitory activity of moringa protein hydrolysates

Samples	IC_{50} (mg/ml)
Trypsin	4.16 ± 0.2
Pepsin	2.1 ± 0.1
Pancreatin	4.74 ± 0.4
Alcalase	5.35 ± 0.3
Ficin	4.34 ± 0.3
MPI	16.83 ± 1.5
MPH ex-vivo	1.98 ± 0.2

Table no. S4. Kidney damage markers like BUN, creatinine and albumin were analysed in plasmaparameters. Kidney tissue was analysed for protein carbonyl levels and Reactive oxygen species (ROS) in hypertensive rats indicates kidney damage. Values are expressed as mean ± standard deviation ($p<0.05$).

	Samples	Control	LN	HCD	LN FAA	LN MPI
Blood plasma	Albumin(g/dL)	3.16 ± 0.2	2.93 ± 0.03	3.14 ± 0.2	3.45 ± 0.1	3.35 ± 0.2
	Creatinine (m/dL)	0.88 ± 0.2	2.39 ± 0.2	0.95 ± 0.1	0.39 ± 0.1	0.35 ± 0.1
Kidney	BUN (mg/dL)	23.5 ± 4.4	177.2 ± 42	193.9 ± 41	292.4 ± 19	246.9 ± 24
	Protein Carbonyl (nmol/mg)	0.099 ± 0.02	0.179 ± 0.01	0.126 ± 0.01	0.162 ± 0.02	0.115 ± 0.02
	ROS (nmol/mg/min)	131.2 ± 10	153.5 ± 3	148.0 ± 10	148.0 ± 9	146.7 ± 2