

Supplementary Material

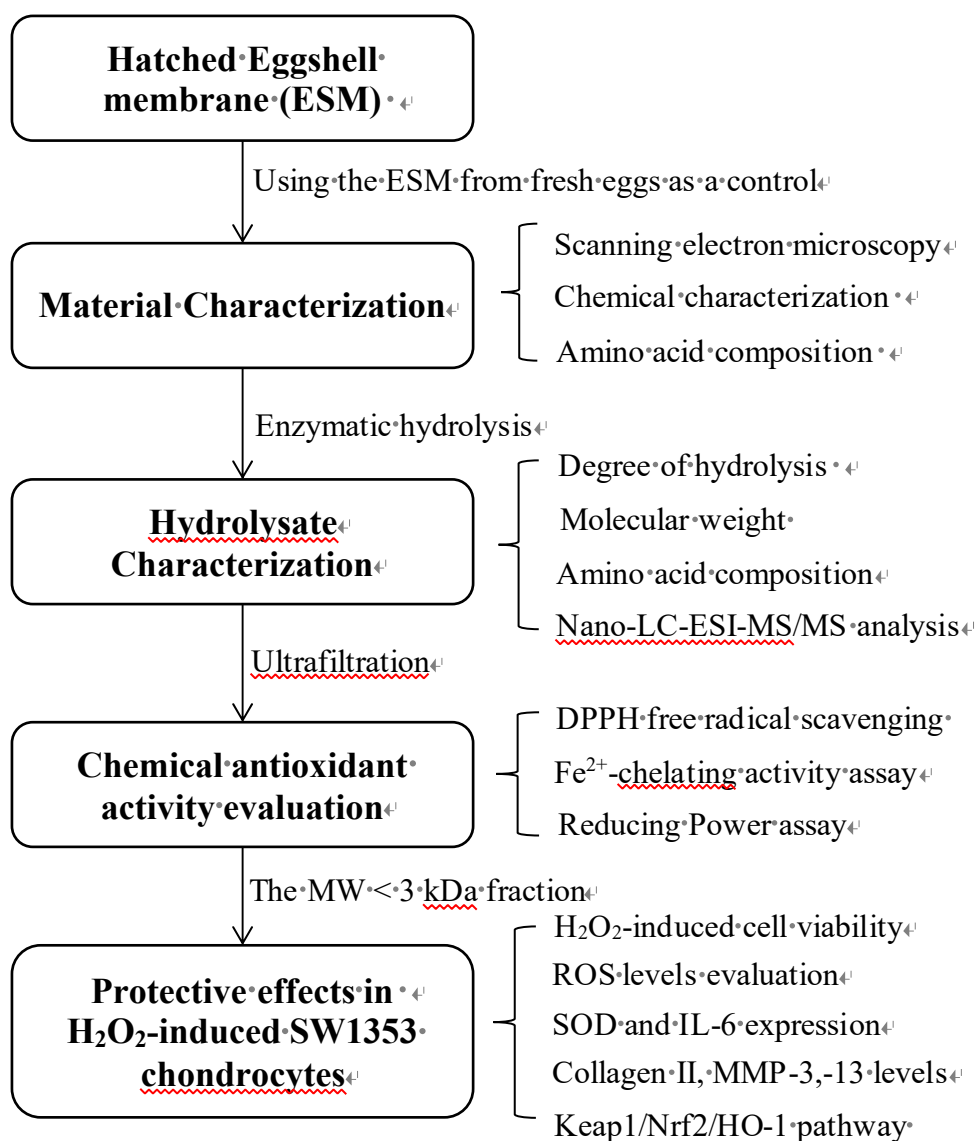


Figure S1 The flow chart of the research strategy of the present work.

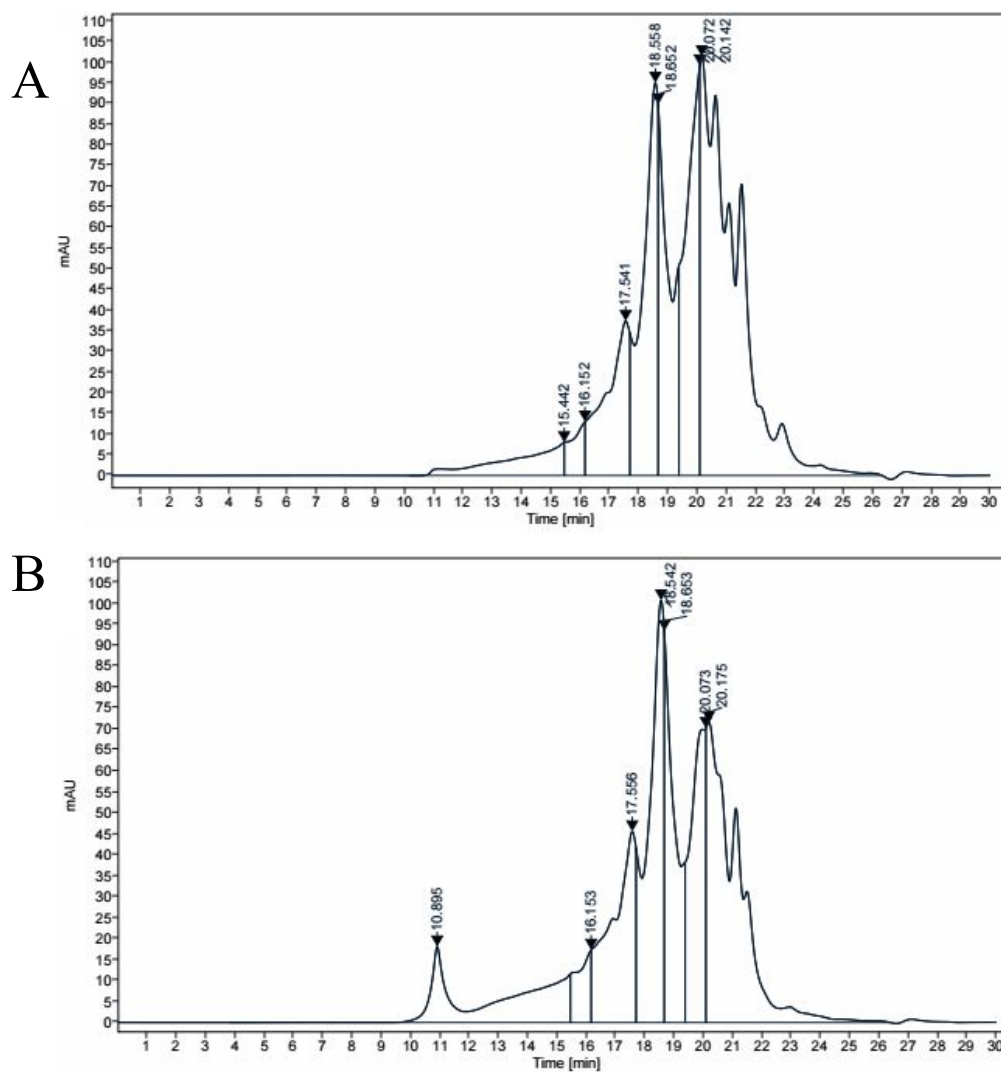


Figure S2. Molecular weight distribution of hatched eggshell membrane hydrolysates (A) and fresh eggshell membrane hydrolysates (B) by HPLC using a TSK gel G2000 column.

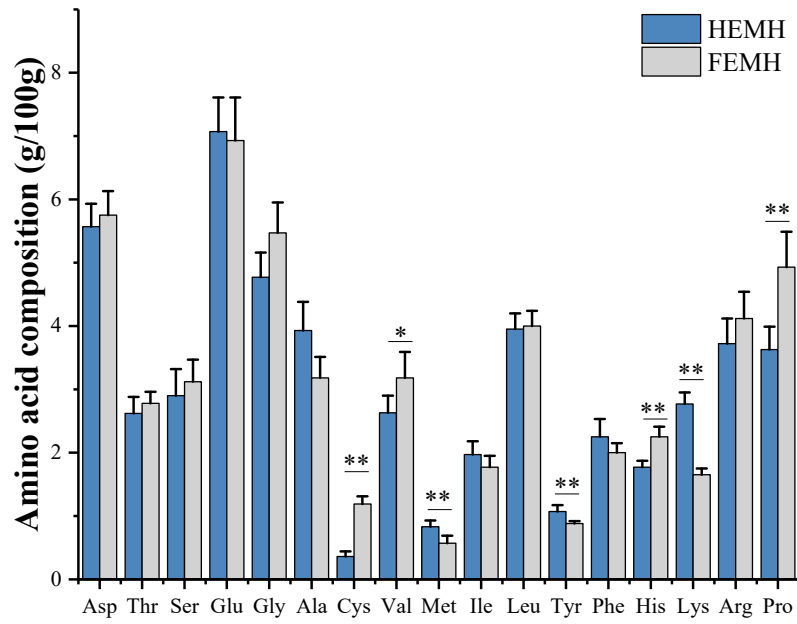


Figure S3. The composition of amino acids (g/100g) in hydrolysates of hatched ESM (HEMH) and fresh ESM (FEMH). The significance levels of $*P < 0.05$ and $**P < 0.01$ are for FEMH versus HEMH at the same amino acid.

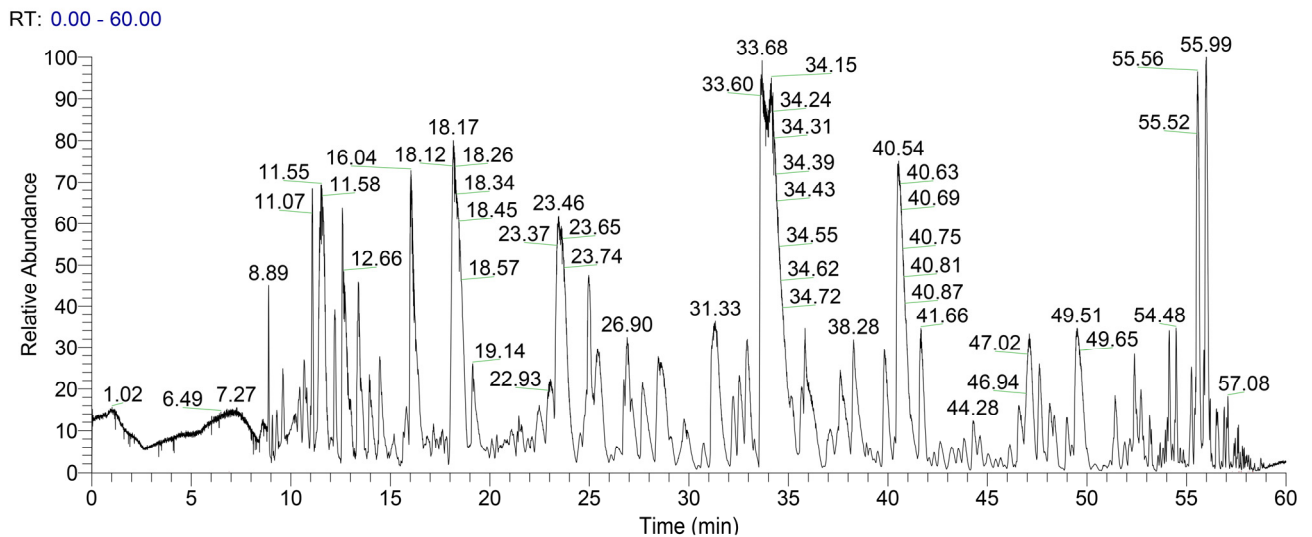


Figure S4. Total ion chromatogram by Nano-LC-ESI-MS/MS.

Table S1. The major peptides identified in HEMH by Nano-LC-ESI-MS/MS.

Sequence	Mass	Protein source	Score	Intensity (% of area)	Peptide Ranker score
VEDIRIR PIL	1222.7398	Lysyl oxidase homolog	119.29	7.70×10 ⁹ (8.58%)	0.29
NDGRTP GSR	958.45806	Lysozyme C	98.048	5.62×10 ⁹ (6.27%)	0.30
DVPRDP WVW	1168.5665	Ovocleidin-116	69.423	5.52×10 ⁹ (6.15%)	0.84
VGIGKP GPM	854.46841	Collagen alpha-1(X) chain	73.039	4.84×10 ⁹ (5.40%)	0.56
VERLRIP L	994.62875	Uncharacterized protein	110.61	4.24×10 ⁹ (4.72%)	0.22
VEDIRIR PI	1109.6557	Lysyl oxidase homolog	101.28	3.87×10 ⁹ (4.31%)	0.29
AYLEDR PMFM	1271.5679	Lysyl oxidase homolog	135.83	3.73×10 ⁹ (4.16%)	0.77
VFFDMF NAL	1102.5158	Calcium-transporting ATPase	85.265	3.71×10 ⁹ (4.14%)	0.83
DKDGPF RL	946.48723	VWFD domain-containing protein	130.22	3.15×10 ⁹ (3.51%)	0.84
AYLEDR PMFML	1384.6519	Lysyl oxidase homolog	126.07	3.0×10 ⁹ (3.34%)	0.82