

**Supplementary Figure 1.** SDS-PAGE results of accession PI424088 after filtration with 30 and 50 kDa MWCO filters. Red box indicated lunasin band. Yellow box indicated the bands that were cut from the gel and used for LC-MS/MS analysis to find the lunasin sequence. Previously purified lunasin was used as a control. This figure was adapted from Kusumah et al. (2025).

**Supplementary Figure 2.** Cell viability after treatment with different concentrations of digests, lunasin-free protein, total protein extract and enriched lunasin protein extract from different accessions of *G. soja*. Different letters showed statistical significance ( $p < 0.05$ ) according to one-way ANOVA

**Supplementary Figure 3.** SDS-PAGE results of accession PI424088 showing the protein profile of lunasin-free protein (LFP) eluted by Buffer A (Tris-HCl, 1 M, pH 7.5) in comparison to enriched lunasin protein extract (ELPE) eluted by Buffer B (Tris-HCl + NaCl, 1 M, pH 7.5) after first and second purification, and before filtration with 50 kDa MWCO filter. Red box indicated the presence of  $\beta$ -conglycinin and lunasin