

Expression of bioactive lunasin peptide in transgenic rice grains for the application in functional food

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Supplementary Materials:

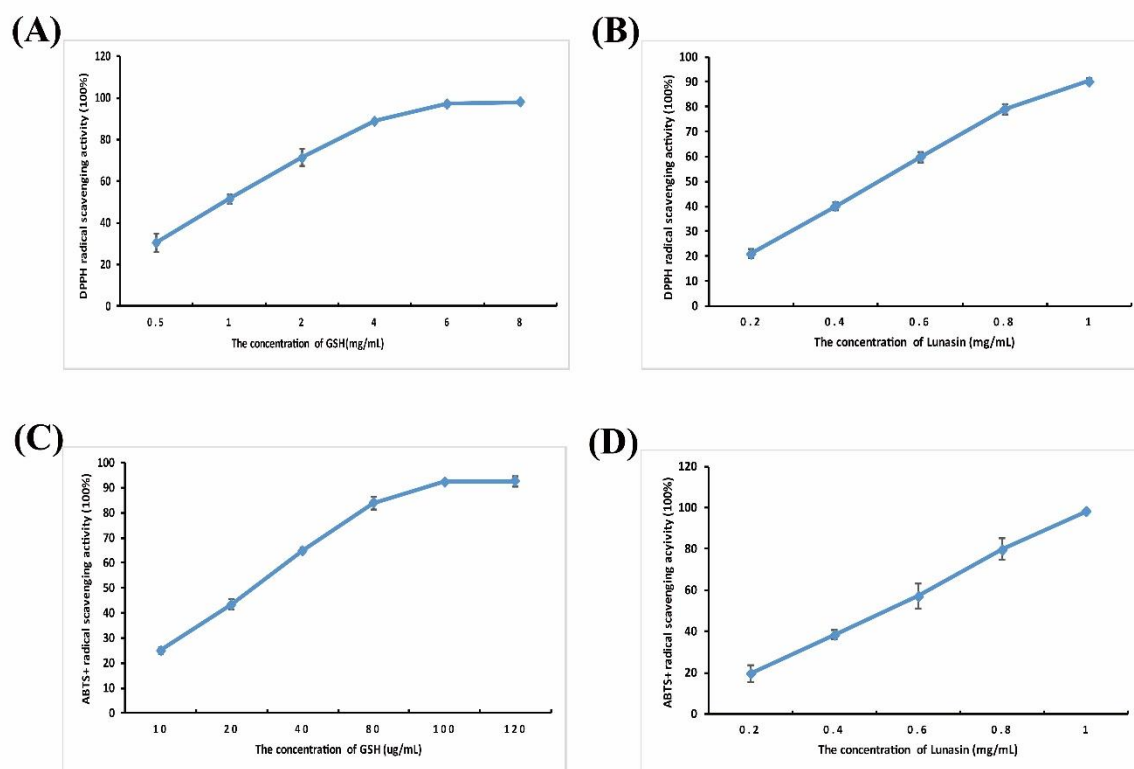


Figure S1. Antioxidant activity analysis of reduced glutathione (GSH) and lunasin standard. (A) DPPH radical assay of GSH. (B) DPPH radical assay of lunasin standard. (C) ABTS⁺ radical assay of GSH. (D) ABTS⁺ radical assay of lunasin standard.

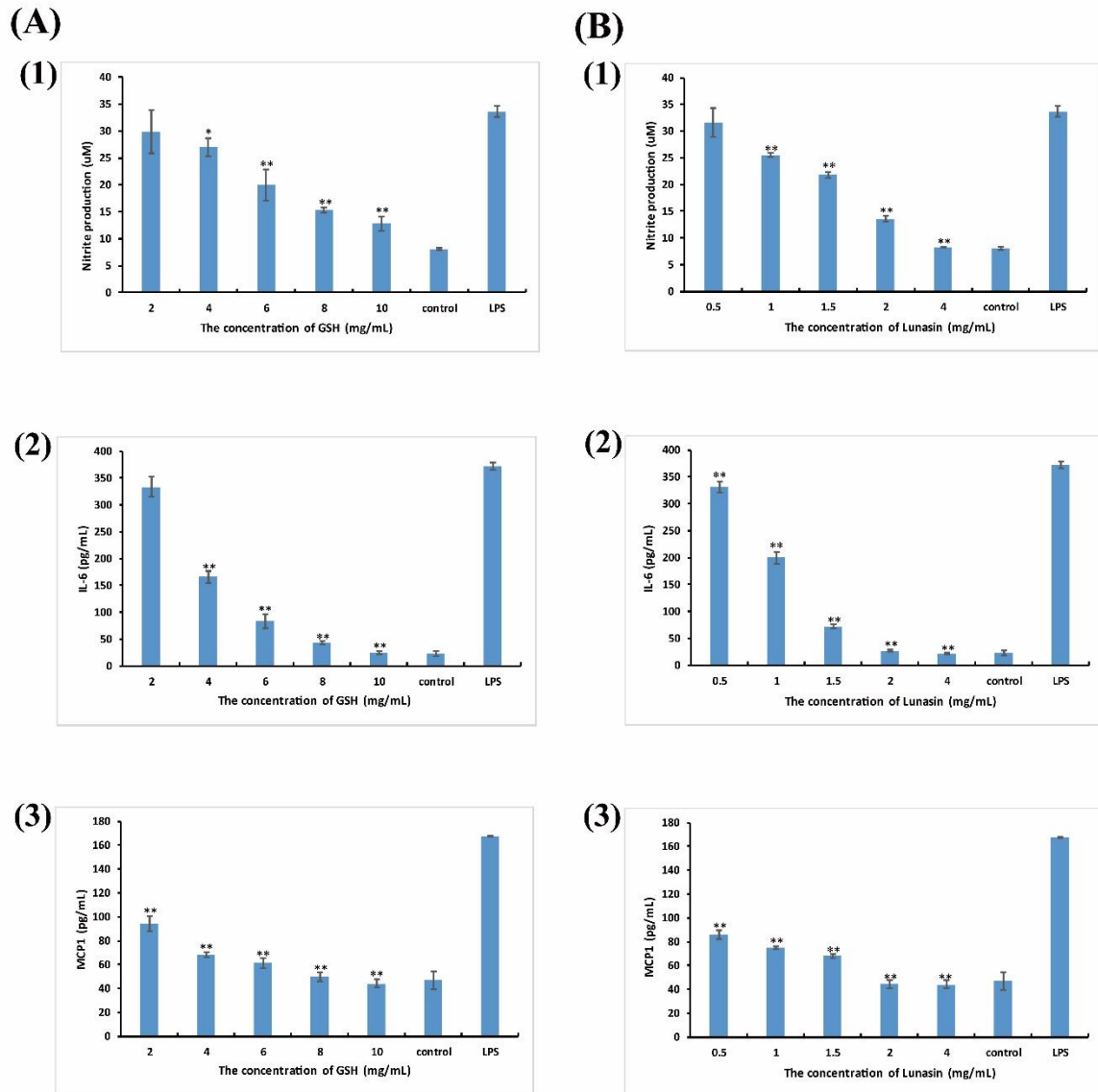
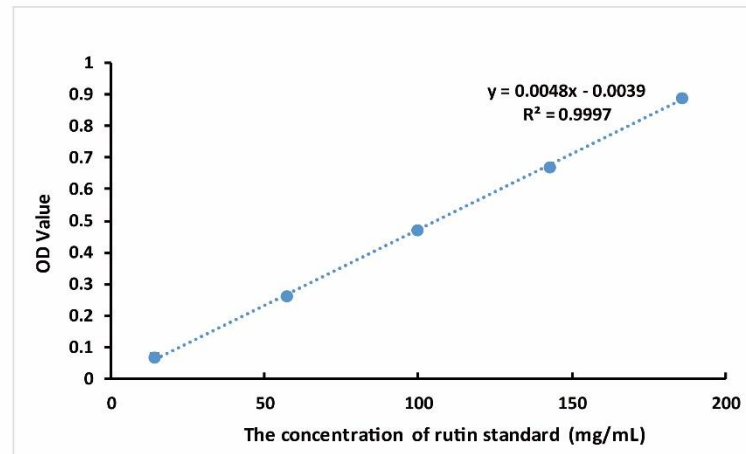


Figure S2. Anti-inflammatory activity analysis of reduced glutathione (GSH) and lunasin standard. (A) Production of NO (1) and the release of pro-inflammatory cytokines including IL-6 (2), MCP1 (3) in RAW264.7 cells were inhibited by GSH. (B) Production of NO (1) and the release of pro-inflammatory cytokines including IL-6 (2), MCP1 (3) in RAW264.7 cells were inhibited by lunasin standard. Data are shown as the means of three independent experiments, the bars indicate $\pm$ SD. * $P < 0.05$ and ** $P < 0.01$ show significant differences between the GSH/ Lunasin standard and the LPS-alone treated group.

(A)



(B)

	WT	L07	L09	L15
	0.0129833	0.0075833	0.0058833	0.0102833
OD510	0.0147833	0.0100833	0.0079833	0.0122833
	0.0142833	0.0083833	0.0072833	0.0109833

Figure S3. Flavone analysis of wild type and trans-lunasin rice. (A) Rutin standard curve in total flavone content analysis. (B) OD value at 510nm in Flavone content assay.

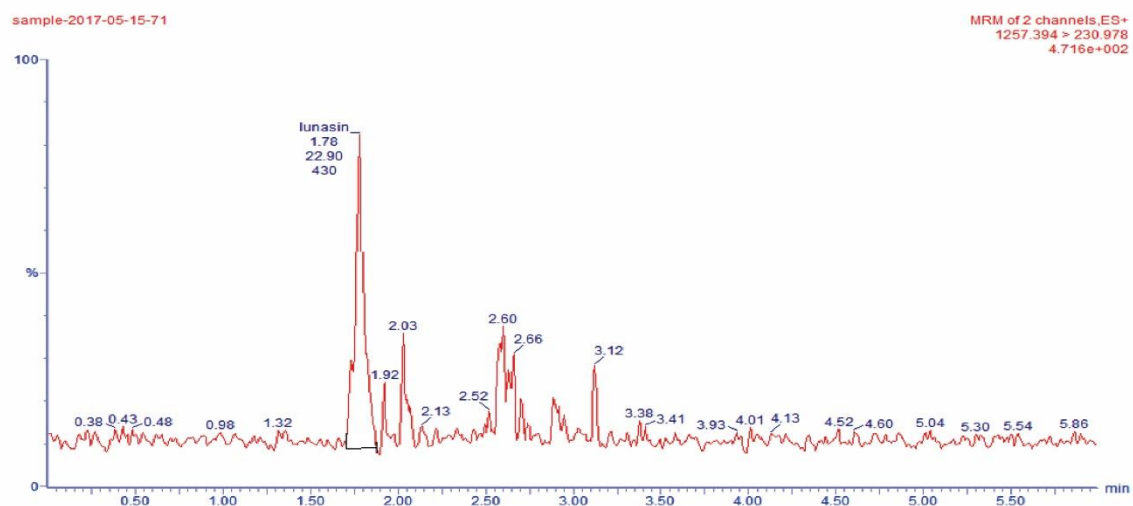


Figure S4. MRM chromatogram of trans-lunasin rice extract.