

Fig. S1. The elution curve of LGE on Sephadex-G10. LGE was eluted with distilled water, the elution peak was collected and lyophilized.

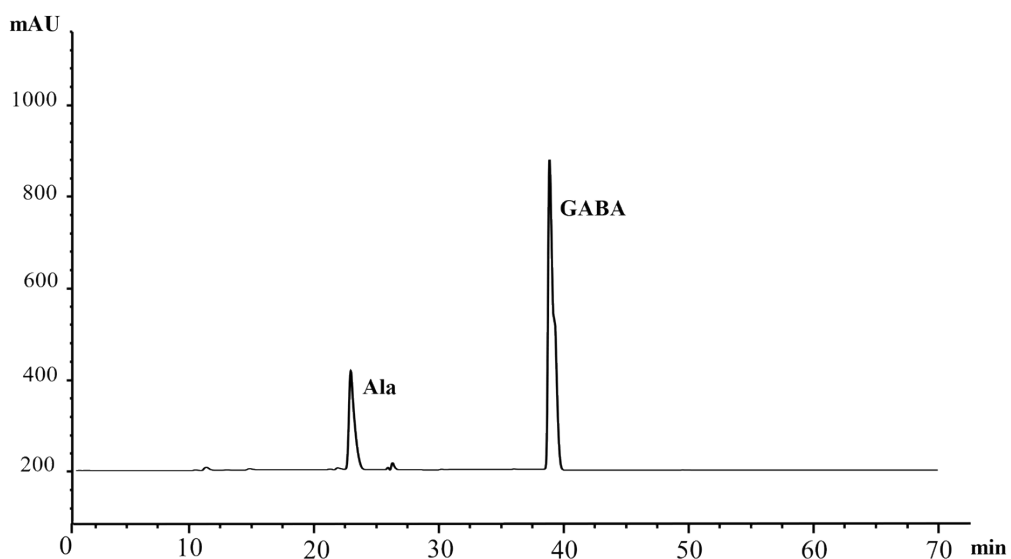


Fig. S2. The HPLC chromatogram of LGE. The amino acids detected in LGE were Alanine and GABA.

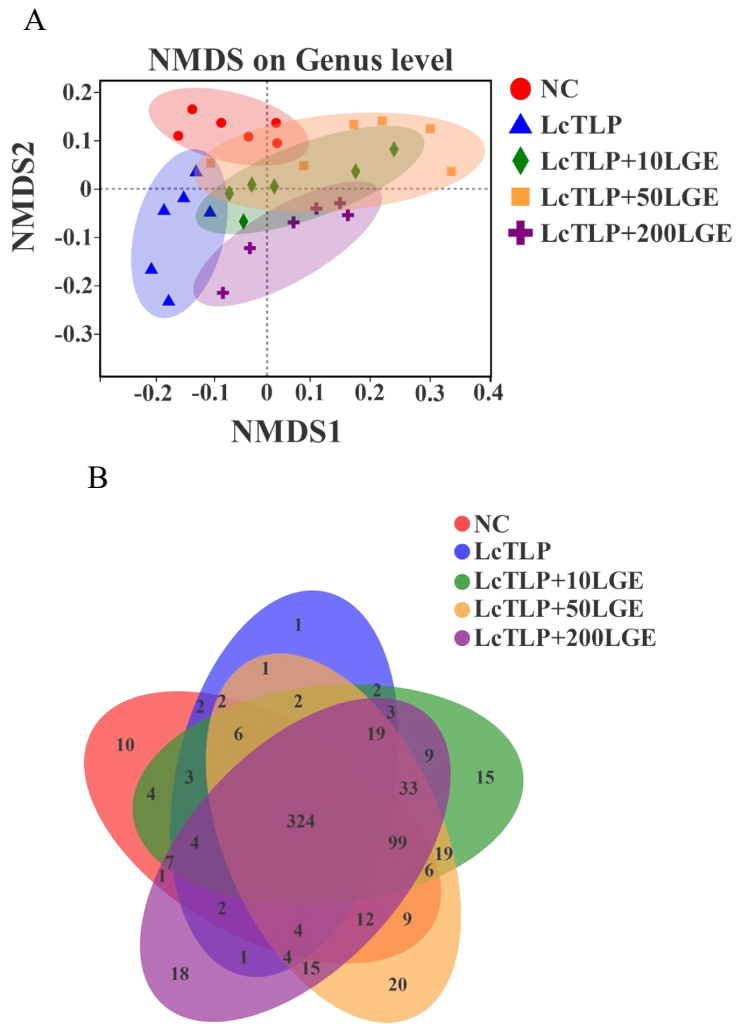


Fig. S3. Gut microbiota analysis. (A) NMDS of the weighted UniFrac distances (B) Venn diagram of five groups on OTUs level.

Table S1. The contents of the main amino acids in LGE

Amino acids	Content (% DW)
Alanine	23.4
GABA	70.6