

Supplementary Materials:

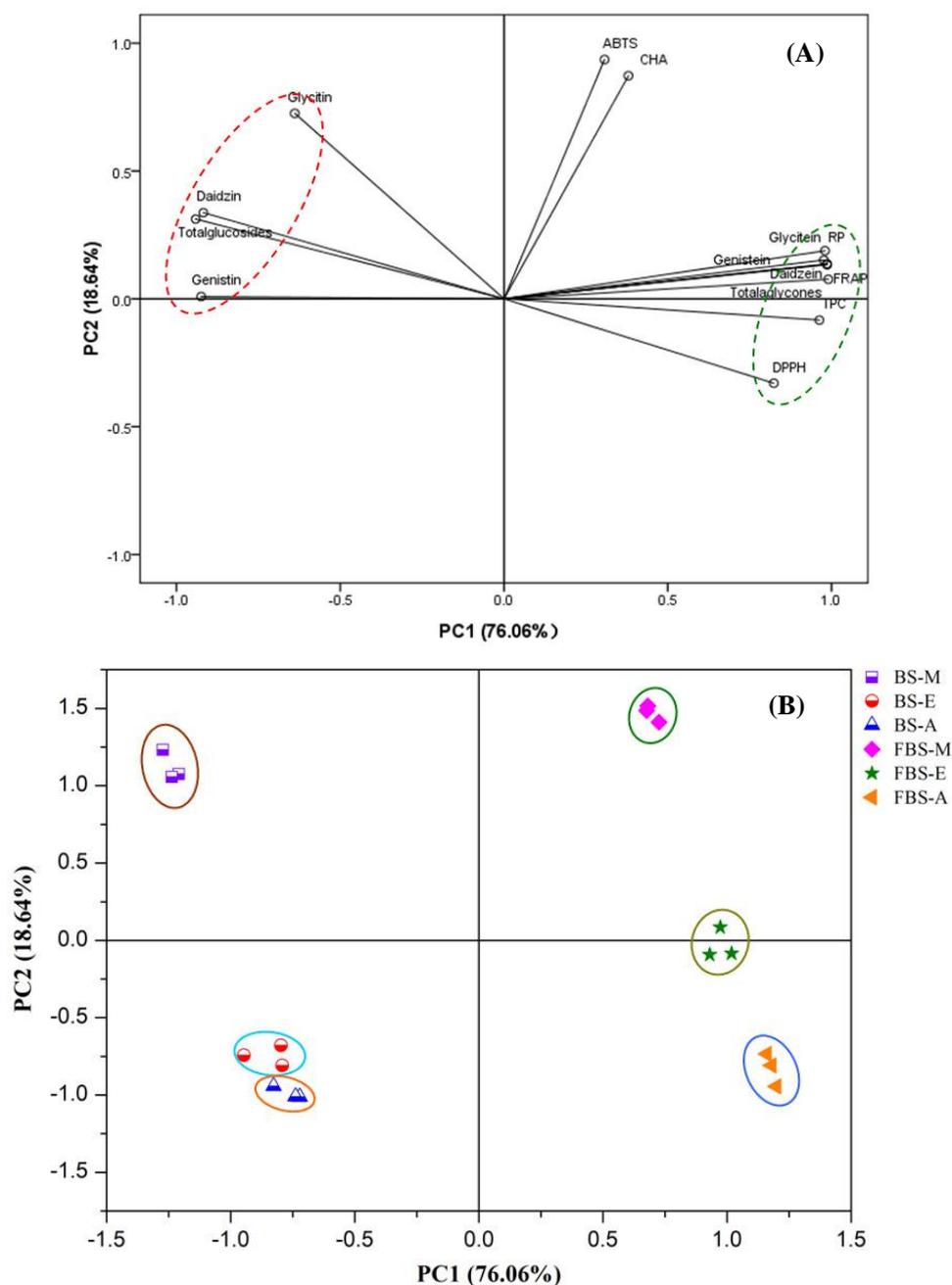


Figure S1 (A) Loading plot of principal component analysis (PCA) of total phenolic content (TPC), isoflavones content and antioxidant activity. (B) Score plot of principal component analysis (PCA) of discrepant solvent extracts of non-fermented black soybean and *E. cristatum*-fermented black soybean. -M, -E, and -A indicate non-fermented black soybean (BS) and *E. cristatum*-fermented black soybean (FBS) were extracted with 80% methanol, 80% ethanol and 80% acetone, respectively.

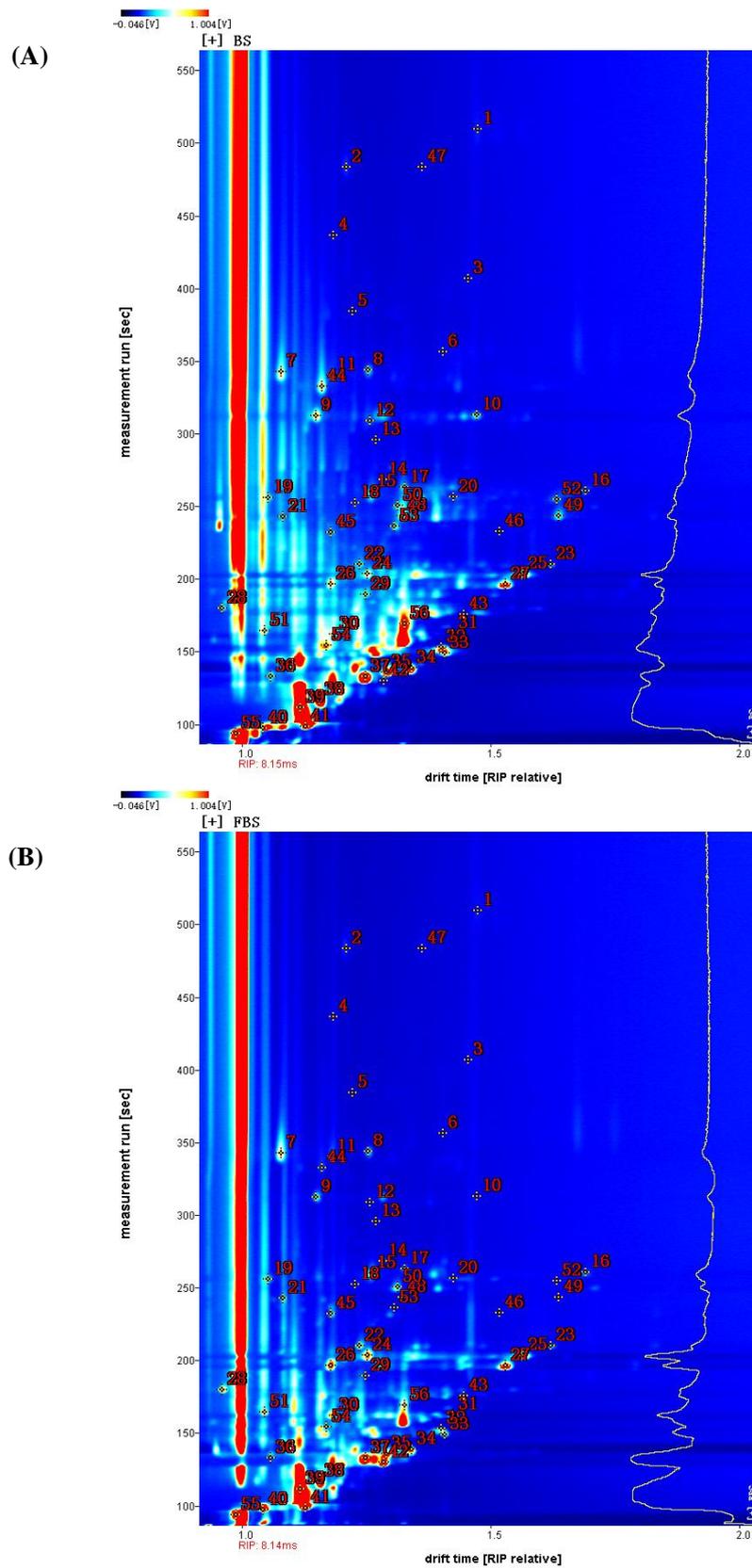


Figure S2 Topographic plots of GC–IMS spectra with the 56 selected markers obtained from non-fermented black soybean (A) and *E. cristatum*-fermented black soybean (B).