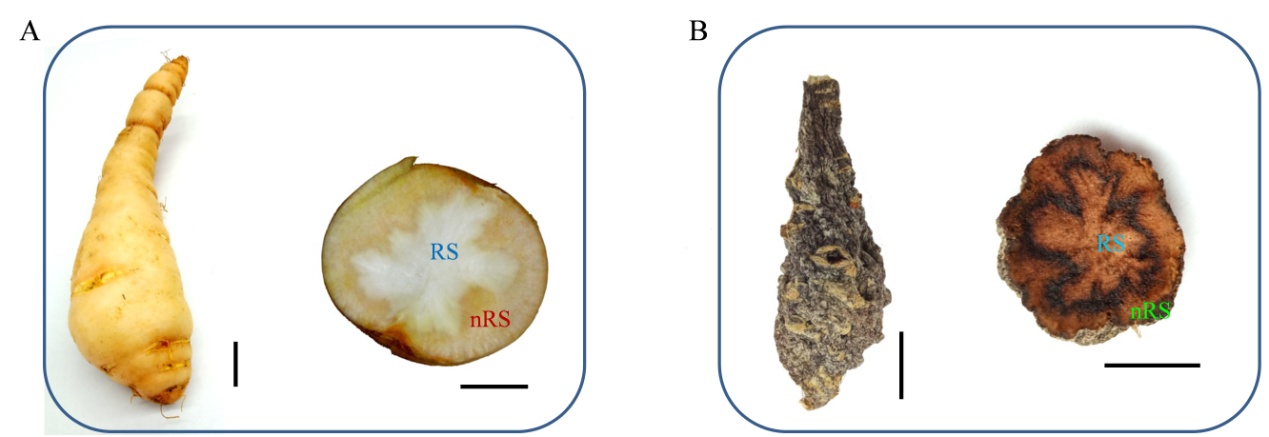
**Supplementary information**



**Figure S1** Feature of the fresh and dried tuberous root of *R glutinosa*. A, Fresh tuberous root of and its cross section; B, Dried tuberous root and its cross section. RS, radial striation; nRS, non-radial striation. Bars are 1.0 cm. Abbreviations: RS, radial striation; nRS, non-radial striation. The same as follows.

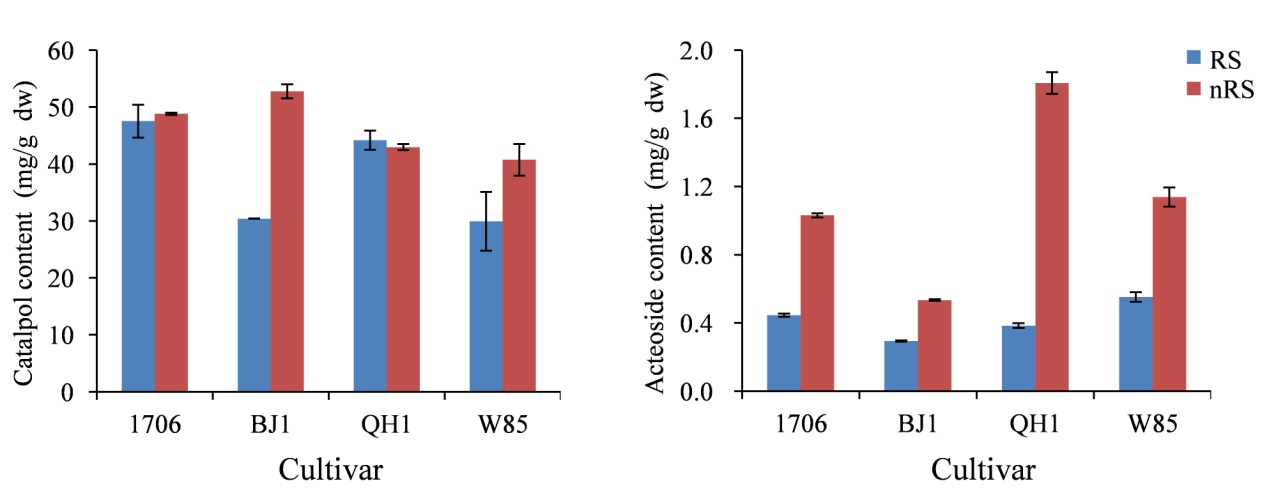
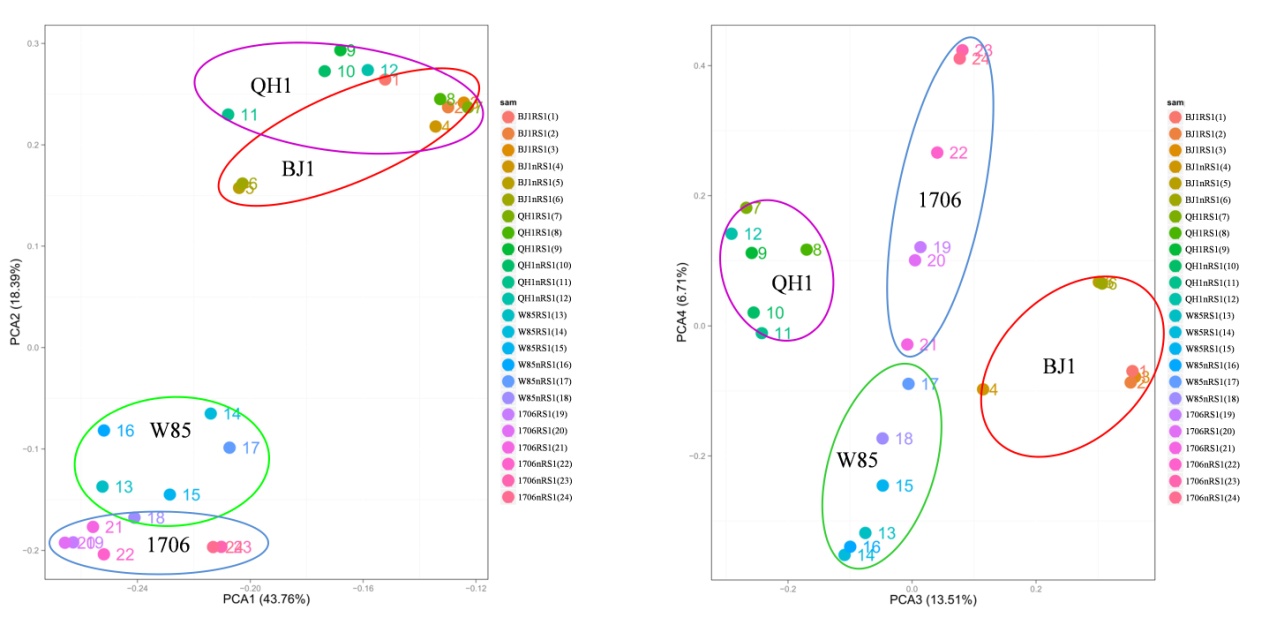
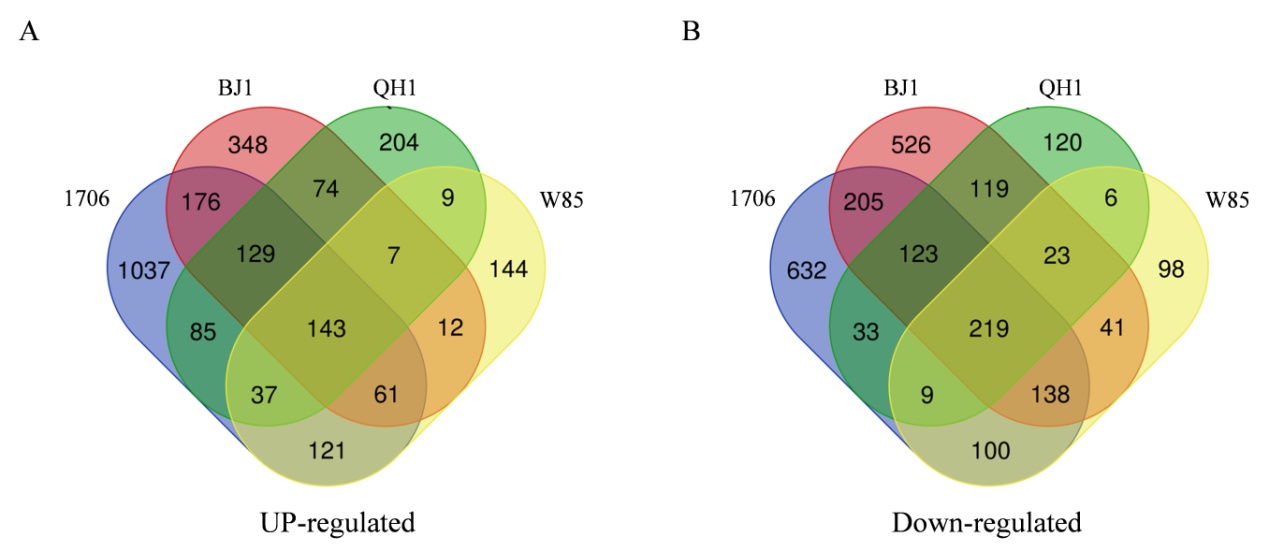
****

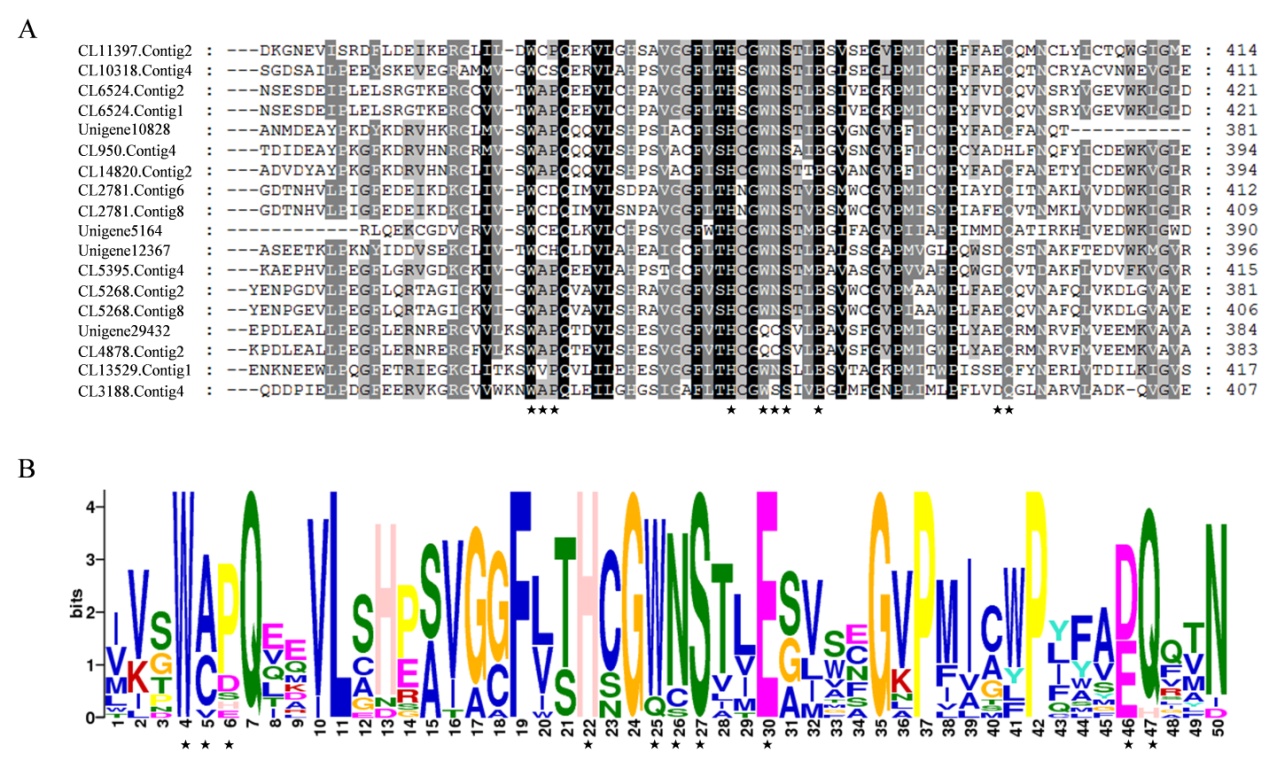
Figure S2 Contents of catalpol and total acteoside in radial striation and non-radial striation of *R. glutinosa*

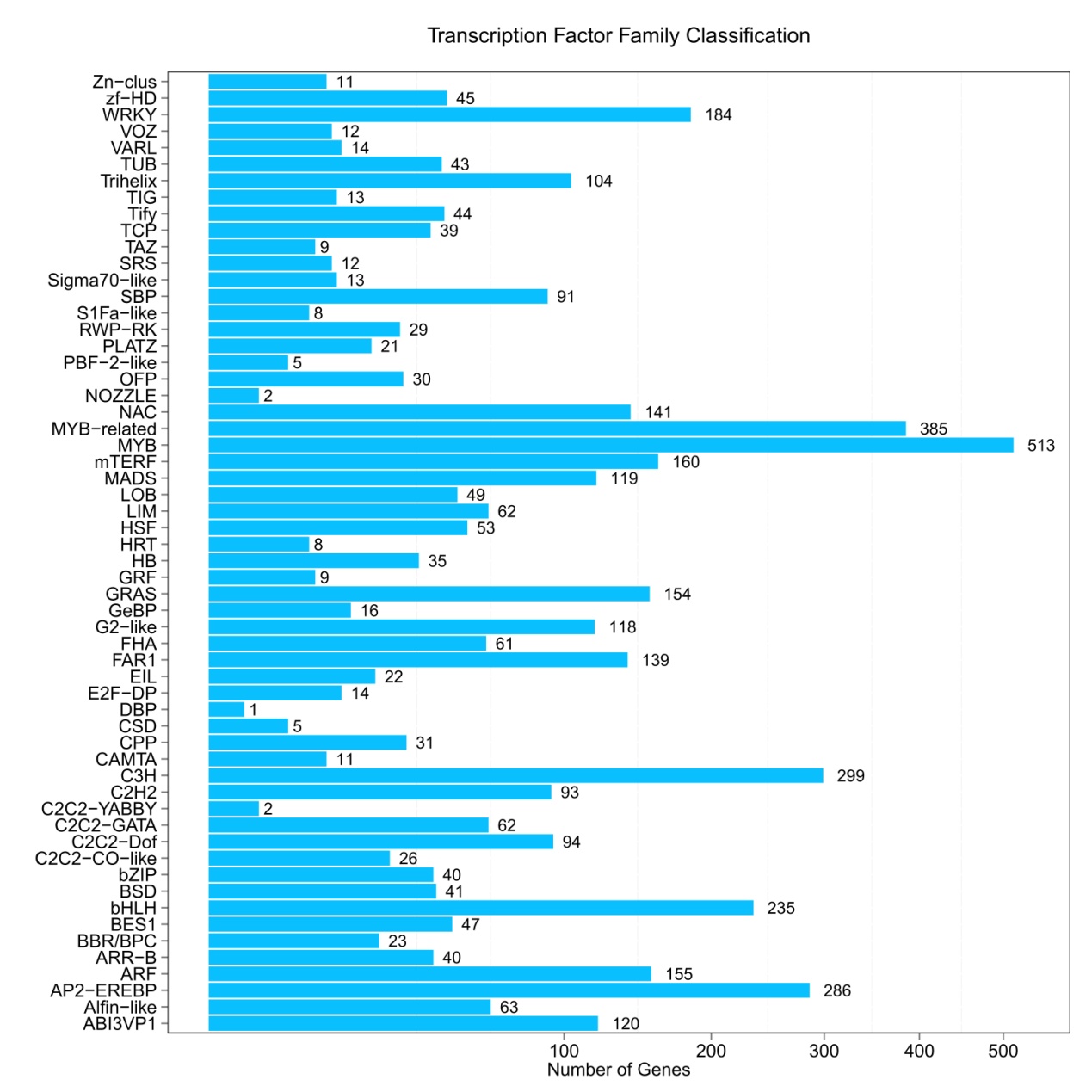
****

**Figure S3** Principal component analysis (PCA) score plots of radial striation and non-radial striation from four *R. glutinosa* cultivars.



**Figure S4** Venn diagram analysis of the quantity of the up-regulated (A) and down-regulated (B) DETs identified in radial striations and non-radial striations.

****

**Figure S5** Conserved sequences of *R. glutinosa* UGTs binding domain. A, Conserved amino acid residues are present among the 18 *R. glutinosa* UGTs. The highly conserved amino acid residues in each repeat are highlighted in dark gray. B, Sequence logos of the 18 UGTs with UGT binding domain. ****

**Figure S6** Identified transcription factor families from *R. glutinosa* transcriptome