**Abbreviations list**

*DoEXP*s: *Dioscorea opposita* expansin genes

NJ: Neighbor-joining

G2A: Group 2 grass pollen allergen proteins

MEME: Multiple em for motif elicitation

MeJA: Methyl jasmonate

ABA: Abscisic acid

GA: Gibberellin

IAA: Auxin

SA: Salicylic acid

MYB: Myeloblastosis

MBS: Drought-inducible MYB Binding Site

LTR: Low-temperature-responsive

Ka: The nonsynonymous substitution rate

Ks: The synonymous substitution rate

Mya: Million years ago

PFAM: Database of protein families

GO:Gene ontology

CC: Cellular component

BP: Biological process

MF: Molecular function

qPCR: Real-time quantitative polymerase chain reaction