

Article

Transcriptome profiling of maize (*Zea mays* L.) leaves reveals key cold-responsive genes, transcription factors, and metabolic pathways regulating cold stress tolerance at the seedling stage

Joram Kiriga Waititu¹, Quan Cai², Ying Sun¹, Sun Yinglu³, Congcong Li¹, Chunyi Zhang¹, Jun Liu³, and Huan Wang^{1,4} *

¹ Biotechnology Research Institute, Chinese Academy of Agricultural Sciences, Beijing 100081, China; joram.kiriga@gmail.com (J.K.W.); sunying0624@126.com (S.Y.); licongcong01@caas.cn, zhangchunyi@caas.cn (C.Z.); wanghuan@caas.cn (H.W.).

² Maize Research Institute, Heilongjiang Academy of Agricultural Sciences, Harbin 150086, China; cq6539@163.com (Q.C.).

³ National Key Facility for Crop Resources and Genetic Improvement, Institute of Crop Science, Chinese Academy of Agricultural Sciences, Beijing 100081, China; sunny_5211995@sina.com (S.Y.L.), liujun@caas.cn (J.L.).

⁴ National Agricultural Science and Technology Center, Chengdu 610213, P.R. China; wanghuan@caas.cn (H.W.)

* Correspondence: wanghuan@caas.cn

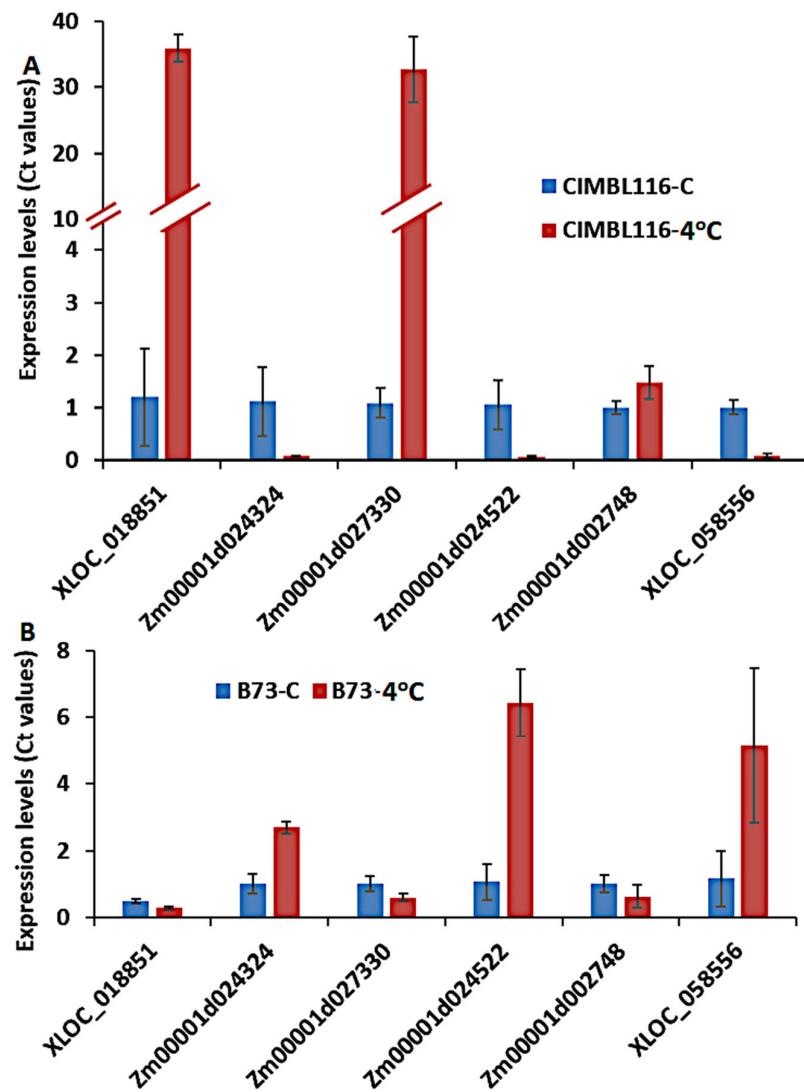


Figure S3. Validation of expression pattern of six genes identified by RNA-Seq by Ct values obtained from qRT-PCR. (A) Expression patterns of six genes in the cold-tolerant line (CIMBL116) before and after cold treatment. (B) Expression patterns of six genes in the cold-sensitive line (B73) before and after cold treatment. Error bars represent the standard deviation while blue and dark red color represents control and treatment at 4°C.