



Figure S5. The TFs that bind to the *Hsf* promoter region in published reports. (a) The model of the ABA signaling pathway and ABA-mediated thermoprotection [1]. CaM: Calmodulin; OxR: oxidative stress response. (b) The schematic model shows HY5-HDA9 orchestrates the transcription of *HsfA2* to modulate salt stress response in *Arabidopsis* [2]. HDA9: histone deacetylase 9. We learned more about the transcription factors (TFs) that bind to the *Hsf* promoter region from published reports (Fig. S5a). In *Arabidopsis*, the seed-specific transcription factor ABA-insensitive 3 (ABI3) could activate the *AtHsfA9* promoter[3]. The dehydration-(DREB) family class 2 (DREB2C) interacts with two DREs located in the *AtHsfA3* promoter [4]. The promoter of *AtHsfA6a* contains two ABA-responsive elements (AREs) and is bound in vitro by three ABA-responsive TFs (AREB1, ABF3 and AREB3) [5]. The HY5 directly binds to the G-box motifs in the *AtHsfA2* promoter (Fig. S5b), to modulate the salt stress response in *Arabidopsis* [2]. With respect to heat stress, the tomato HsfA1 and HsfA2 interacted to form hetero-oligomeric superactivator complexes for synergistic activation of heat stress gene expression [6]. The interactions between *Arabidopsis* HsfA1a and HsfA1b and their interactions with HsfA2 require their oligomerization domains [7]. In conclusion, the promoter regions of *LcHsf*s genes are also rich in abscisic acid responsive elements (ABRE elements), drought inducible

elements (MBS elements), light responsive elements (G-box and Box4). Thus, the above-mentioned TFs can be used as a reference source to study the binding of *LcHsf* genes promoter, such as ABA-responsive TFs (AREB1, ABF3 and AREB3) or TF HY5.

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