

Fig. S1. Carotenoids (A) and capsaicinoids (B) biosynthetic pathways. A. Geranylgeranyl diphosphate that is synthesized from the prenyl lipid biosynthesis pathway is catalyzed by phytoene synthase to produce phytoene, which represents the first step in the carotenoid pathway. Then, after synthesizing lycopene, this pathway is divided into two different branches: α -carotene is finally developed into lutein, and β -carotene is ultimately formed into capsorubin or capsanthin as a function of capsanthin/capsorubin synthase (CCS). The ellipsis indicates intermediate steps. B. The two distinct pathways, the phenylalanine and chain fatty acid biosynthesis pathways, come together to produce capsaicin at the end of the catalysis of capsaicin synthase (CS). ZDS, ζ -carotene desaturase; CRTISO, carotenoids isomerase; LCYE, lycopene ϵ -cyclase; CrtZ-2, β -carotene hydroxylase-2; PAL, phenylalanine ammonia-lyase; C4H, cinnamate 4-hydroxylase; 4CL, 4-coumaroyl-CoA ligase; HCT, hydroxycinnamoyl transferase; C3H, *p*-coumaroyl shikimate/quinate 3-hydroxylase; COMT, caffeoyl-CoA 3-O-methyltransferase; HCHL, hydroxycinnamoyl-CoA hydratase lyase; AMT, aminotransferase; BCAT, branched-chain amino acid aminotransferase; Kas, ketoacyl-ACP synthase; ACL, acyl carrier protein; and Fata, acyl-ACP thioesterase.

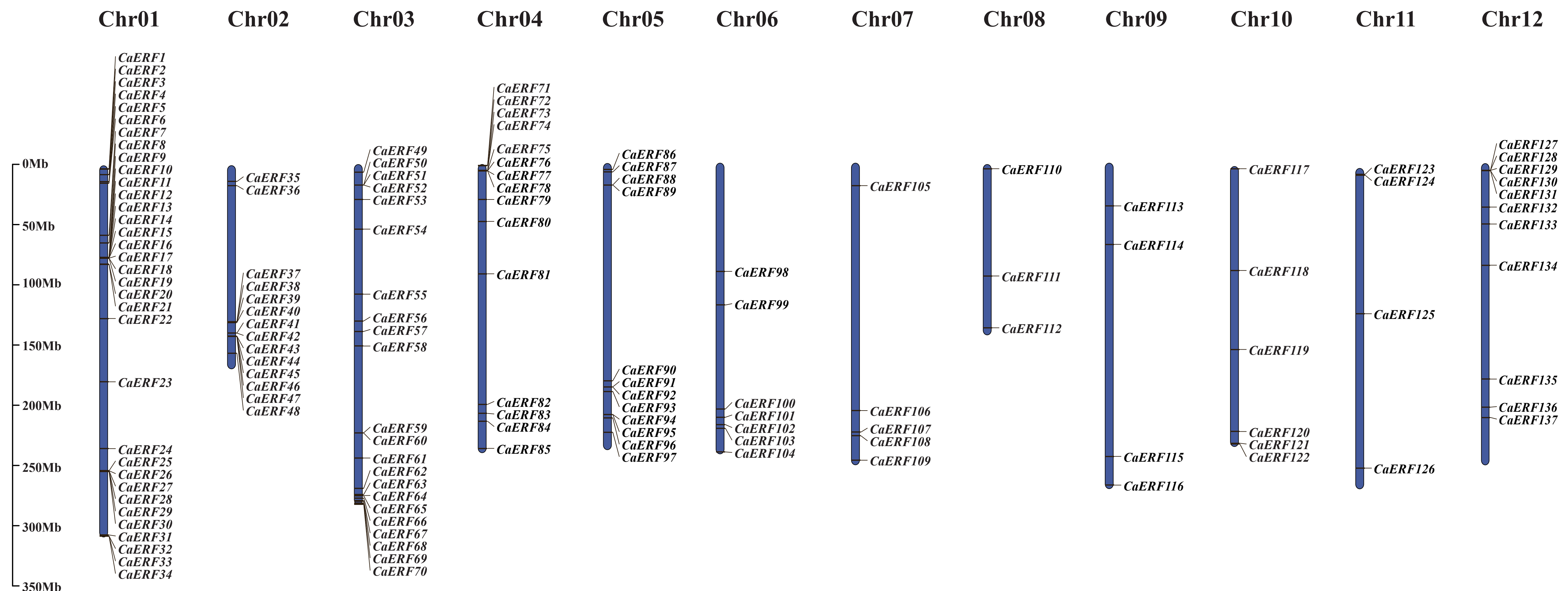


Fig. S2. Physical distribution of all candidate *CaERFs* among chromosomes (Chrs). The chromosome distribution of each pepper *ERF* was obtained from the genome annotation information, and then used the Map Gene 2 Chromosome v 2 (MG2C; http://mg2c.iask.in/mg2c_v2.0/) to make the linkage visualization.

A

DREB Subfamily

	10	20	30	40	50	60
I	CaERF84	LYRGVQRQ	-HWGKWVAEIRL	LPK--NRTRLWLG	TFDTAEAAALAYDKAAYMLRG--DFARLNFS	
	CaERF31	LYRGVQRQ	-HWGKWVAEIRL	LPQ--NRTRVWLG	TYDNEAAAYAYDRAAYKLRG--EYARLNFP	
	CaERF1	LYRGVQRQ	-HWGKWVAEIRL	LPQ--NRMRVWLG	TYTAEAAAYAYDRAAYKLRG--EYARLNFP	
	CaERF49	LYRGVQRQ	-HWGKWVAEIRL	LPK--NRTRVWLG	TFDTAEAAAFAYDTAAYLKR--DYAHLNFP	
	CaERF107	LYRGVQRQ	-HWGKWVAEIRL	LPK--NRTRLWLG	TFDTAEAAAMAYDRAAYKLRG--DNAKLNFP	
II	CaERF114	TYRGVQRQ	-TWGKWVAEIREP	VNNNGKRLWLG	TFSTDAEAARTYDEAAKAMYG--HDAIILNFP	
	CaERF97	KYRGVQRQ	-TWGKWVAEIREP	H--RGSRLWLG	TFATAIEAALAYDEAARAMYG--PCARLNLP	
	CaERF134	TYRGVQRQ	-TWGKWVAEIREP	N--RGARLWLG	TFNTSLEAARAYDAAARRLYG--ADAKLNLS	
	CaERF122	EYRGVQRQ	-TWGKWVAEIREP	K--KRTRLWLG	SFATAEEAAMAYDAAARRLYG--PDAYLNLP	
	CaERF85	KYGVQRQ	-TWGKWVAEIREP	N--RGARLWLG	TFDNTS YDAAVYDAAALKLYG--AEAKLNLP	
	CaERF119	KYRGVQRQ	-TWGKWVAEIREP	VYF--TGKRLWLG	TFSTASEAAIAYDEAAKVMYG--SNAIILNFP	
	CaERF105	TYRGVQRQ	-TWGKWVAEIREP	N--RGACVWLG	TFDNTS YDAAVYDAAALKLYG--DKAQLNLP	
	CaERF54	KFRGVQRQ	-SWGKWVAEIREP	R--KRTRRWLG	TFATAEDAAARAYDRAAIILYG--SRAQLNLP	
III	CaERF139	RYKGVQRH	-HWGKWVAEIRL	PC--KRTRLWLG	TFDSAEAAIAYDVEAFRLKR--NKCAA--	
	CaERF116	MYRGVQRK	-KWGWVSEIRL	PN--SRERIWLG	S YDTP EKAARAFDAALFCLRG--SNAFNFP	
	CaERF80	KYGVVRR--	SWGWSVEIRAPN	--QKTRIWLG	SYS TPEAARAYDAAALCLKRGPSASINLNF	
	CaERF142	PYKGRMR--	KWGWVAEIREP	N--KRSRIWLG	SYS TPEAARAYDTAVYLRG--PSARLNFP	
	CaERF41	PYRGVRR--	KWGWVAEIREP	N--KRSRIWLG	SYS TPEAARAYDTAVYLRG--PSARLNFP	
IV	CaERF59	VYRGVRRK	-NSGKWVCEVRE	PN--KKSRIWLG	TFPTAEMAARAHDAVAALALRG--RSACLNFP	
	CaERF32	IYRGVRRR	-NNKWVCELR	EPS--KKSRIWLG	TFPTAEMAARAHDAVAALALRG--NLATLNFV	
	CaERF5	IYRGVRRR	-NSGKWVCEIR	EPS--KKSRIWLG	TFPTAEMAARAHDAVAALALRG--HVALLNFP	
	CaERF34	IYRGVRRR	-NNKWVCEIR	EPS--EQKRIWLG	TFPTAEMAARAHDAVAALALRG--NLATLNFV	
	CaERF33	IYRGVRRR	-NNKWVCEIR	EPS--EQKRIWLG	TFPTAEMAARAHDAVAALALRG--NLATLNFV	
	CaERF102	IYRGVRRR	-NSGKWVSEIR	EPS--KKSRIWLG	TFPTAEMAARAHDAVAALALRG--DSIILNFP	
	CaERF90	TYRGVRRK	-SWGKWVSEIR	EPS--KKSRIWLG	TFPTAEMAARAHDAVAALALRG--HTIYLNFP	
	CaERF4	LYHGVRKR	-SWGKWVSEIR	EPS--KKSRIWLG	TFPTAEMAARAHDAVAALALRG--HLAMLNFP	
	CaERF81	AYRGVRRK	-KWGWVSEIR	EPS--KKSRIWLG	TFPTAEMAARAHDAVAALALRG--HAALNFP	
	CaERF23	LYRGVRRR	-NRDKWVCEIR	EPN--KKSRIWLG	TFPTAEMAARAHDAVAALALRG--TKASLNFP	
	CaERF111	VYRGVRRR	-NSGKWVSEIR	EPS--KKSRIWLG	TFPTAEMAARAHDAVAALALRG--NSAIIILNFP	
	CaERF126	VYRGVRRR	-HSKRWVSEV	REPN--KKSRIWLG	TFPTAEMAARAHDAVAALALRG--RSACLNFP	
	CaERF69	IYRGVRRR	-SWGKWVSEIR	EPS--KKSRIWLG	TFPTAEMAARAHDAVAALALRG--NTAIIILNFP	
	CaERF30	TYRGVRRK	-NSGKWVSEIR	EPS--KKSRIWLG	TFPTAEMAARAHDAVAALALRG--NSAYLNFP	
	CaERF136	IYRGVRRR	-NNDKWVCEVRE	PS--EQKRIWLG	TFPTAEMAARAHDAVAALALRG--QLATLNFV	
	CaERF20	VYKGIKKRKS	SGKWVSEIR	EPS--SPNRIWLG	TFPTAEMAARAHDAVAALALRG--RGAEINFP	
	CaERF60	AYRGVRRS	-NSGKWVCKVRE	PN--KKSRIWLG	TFPTAEMAARAHDAVAALALRG--RSACLNFP	
	CaERF3	VFRGIRCR	--SGKWVSEIR	EPS--KTRRIWLG	TFPTAEMAARAHDAVAALALRG--SDAIIILNFP	
	CaERF98	NFKGIRMR	--NGKWVSEIR	EPS--KTRRIWLG	TFPTAEMAARAHDAVAALALRG--PDAQLNFP	

B

ERF Subfamily

	10	20	30	40	50	60
V	CaERF87	RYRGVQRQ	-PWGKWAAEIRDP	PKA--TRVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF82	RYRGVQRQ	-PWGKWAAEIRDP	HKA--ARVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF138	RYRGVQRQ	-PWGKWAAEIRDP	HKA--ARVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF66	KYRGVQRQ	-PWGKWAAEIRDP	HKA--ARVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF133	RYRGVQRQ	-PWGKWAAEIRDP	PKA--TRVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF135	HYRGVQRQ	-PWGKWAAEIRDP	HKA--ARVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF36	HYRGVQRQ	-PWGKWAAEIRDP	HKA--ARVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF141	KYRGVQRQ	-PWGKWAAEIRDP	HKA--ARVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF118	NYRGVQRQ	-PWGKWAAEIRDP	PKA--ARVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF39	EFRGVQRQ	-PWGKWAAEIRDP	HKA--ORVWLG	TFDTAEAAARAYDCKAVEFRGSK--AKTNFP	
	CaERF40	EFRGVQRQ	-PWGKWAAEIRDP	HKA--ORVWLG	TFDTAEAAARAYDCKAVEFRGSK--AKTNFP	
VI	CaERF104	KFRGVQRQ	-PWGRWAAEIRDP	PKK--RVWLG	TFDTAEAAAKVYDQAAVKLR--AVTNFP	
	CaERF112	KFRGVQRQ	-PWGRWAAEIRDP	PKK--RVWLG	TFDTAEAAAKVYDQAAVKLR--AVTNFP	
	CaERF99	KFRGVQRQ	-PWGRWAAEIRDP	PKK--RVWLG	TFDTAEAAAKVYDQAAVKLR--AVTNFP	
	CaERF2	KFRGVQRQ	-PWGRWAAEIRDP	PKK--RVWLG	TFDTAEAAAKVYDQAAVKLR--AVTNFP	
VI-L	CaERF123	KYRGVQRQ	-KWGWAAEIRDP	PKK--RVWLG	TFDTAEAAAKVYDQAAVKLR--AVTNFP	
	CaERF67	LPRGVRR--	KWGWAAEIRDP	PKK--RVWLG	TFDTAEAAAKVYDQAAVKLR--AVTNFP	
VII	CaERF22	KYRGVQRQ	-TWGKWAAEIRDP	PKK--RVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF53	LYRGVQRQ	-PWGKWAAEIRDP	PKK--RVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF70	KYRGVQRQ	-PWGKWAAEIRDP	PKK--RVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF137	KYRGVQRQ	-PWGKWAAEIRDP	PKK--RVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF35	KYRGVQRQ	-PWGKWAAEIRDP	PKK--RVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF101	KYRGVQRQ	-PWGKWAAEIRDP	PKK--RVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
	CaERF48	KYRGVQRQ	-PWGKWAAEIRDP	PKK--RVWLG	TFDTAEAAARAYDEAALKFRGSK--AKLNFP	
VIII	CaERF52	KYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF27	RYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF71	KYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF38	KYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF131	HYIGVRRK	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF127	HYIGVRRK	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF130	HYIGVRRK	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF132	SYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF56	NYRGVRRK	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF128	KYIGVRRK	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF37	HYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF57	RYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF55	HYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF91	HYIGVRRK	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF51	KYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF50	SYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF72	SYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF94	RYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF86	HYIGVRRK	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF96	HYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF93	KYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF8	RYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF25	RYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF95	NYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF58	KYRGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF29	RYIGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF28	RYIGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF26	RYIGVRRR	-PWGKFAAEIRDS	RQG--ARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF129	QYIGDRKR	-PWGKFAAEIRDS	RNE--IRVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
	CaERF6	EYAAPPER	-RVVVAQSRWDP	PKN--GARVWLG	TFDTAEAAARAYDRAAAYMRGHL--AIIILNFP	
IXa	CaERF108	HYRGVRRK	-PWGRYAAEIRDP	PKK--SRVWLG	TFDTAEAAAKAYDAAARDFRGPK--AKTNFP	
	CaERF115	HYRGVRRK	-PWGRYAAEIRDP	PKK--SRVWLG	TFDTAEAAAKAYDAAARDFRGPK--AKTNFP	
	CaERF106	RYRGVRRR	-PWGRYAAEIRDP	PKK--SRVWLG	TFDTAEAAAKAYDAAARDFRGPK--AKTNFP	
	CaERF65	KYRGVRRR	-PWGRYAAEIRDP	PKK--SRVWLG	TFDTAEAAAKAYDAAARDFRGPK--AKTNFP	
	CaERF109	RYRGVRRR	-PWGRYAAEIRDP	PKK--SRVWLG	TFDTAEAAAKAYDAAARDFRGPK--AKTNFP	
	CaERF117	KFRGVRRK	-PWGRYAAEIRDP	PKK--SRVWLG	TFDTAEAAAKAYDAAARDFRGPK--AKTNFP	
	CaERF24	RYLGVRRR	-PWGRYAAEIRDP	PKK--SRVWLG	TFDTAEAAAKAYDAAARDFRGPK--AKTNFP	
	CaERF88	RYLGVRRR	-PWGRYAAEIRDP	PKK--SRVWLG	TFDTAEAAAKAYDAAARDFRGPK--AKTNFP	
	CaERF89	RYLGVRRR	-PWGRYAAEIRDP	PKK--SRVWLG	TFDTAEAAAKAYDAAARDFRGPK--AKTNFP	
	CaERF83	KYHGVRKR	-PWGRYAAEIRDP	PKK--SRVWLG	TFDTAEAAAKAYDAAARDFRGPK--AKTNFP	
	CaERF47	GERGVRRK	-SRGRYAAEIRDP	PKK--TRVWLG	TFDTAEAAARAYDAAAREFRGK--AKTNFP	
	CaERF125	RYRGVRRR	-PWGRYAAEIRDP	PKK--ERRWLG	TFDTAEAAACAYDCAARMRGK--ARTNFP	
	CaERF43	HYRGVRRK	-PWGRYAAEIRDP	PKK--TRVWLG	TFDTAEAAALAYDGAARS LRGA--AKTNFP	
IXb	CaERF76	HYRGVRRK	-PWGRYAAEIRDP	PKK--CQVWLG	TFDTAEAAAMAYDAAAIFRGGK--AKTNFP	
	CaERF75	HYRGVRRK	-PWGRYAAEIRDP	PKK--CQVWLG	TFDTAEAAAMAYDAAAIFRGGK--AKTNFP	
	CaERF78	HYRGVRRK	-PWGRYAAEIRDP	PKK--CQVWLG	TFDTAEAAAMAYDAAAIFRGGK--AKTNFP	
	CaERF113	PYRGVRRR	-PWGRYAAEIRDP	PKK--CQVWLG	TFDTAEAAAMAYDAAAIFRGGK--AKTNFP	
	CaERF77	HYRGVRRK	-PWGRYAAEIRDP	PKK--CQVWLG	TFDTAEAAAMAYDAAAIFRGGK--AKTNFP	
Xa	CaERF7	KFVGVRQR	-PSGRWVAEIKD	S--QR--VRLWLG	TFDTAEAAARAYDEAARALRGEN--ARTNFA	
	CaERF68	KFVGVRQR	-PSGRWVAEIKD	S--QR--VRLWLG	TFDTAEAAARAYDEAARALRGEN--ARTNFA	
	CaERF63	KFVGVRQR	-PSGRWVAEIKD	S--QR--VRLWLG	TFDTAEAAARAYDEAARALRGEN--ARTNFA	
	CaERF121	SYGVVRQR	-PSGRWVAEIKD	S--QR--VRLWLG	TFDTAEAAARAYDEAARALRGEN--ARTNFA	
	CaERF64	KYRGVQRQ	-HWGWSVSEIRH	L--L--TRIWLG	TFDTAEAAARAYDEAARALRGEN--ARTNFA	
	CaERF103	RYRGVQRQ	-HWGWSVSEIRH	L--L--TRIWLG	TFDTAEAAARAYDEAARALRGEN--ARTNFA	
	CaERF100	RYRGVQRQ	-HWGWSVSEIRH	L--L--TRIWLG	TFDTAEAAARAYDEAARALRGEN--ARTNFA	
	CaERF62	KFVGVRQR	-PSGRWVAEIKD	S--QR--VRLWLG	TFDTAEAAARAYDEAARALRGEN--ARTNFA	
	CaERF140	KFVGVRQR	-PSGRWVAEIKD	S--QR--VRLWLG	TFDTAEAAARAYDEAARALRGEN--ARTNFA	
	CaERF15	RYKGVQRQ	-KPGNNVAEVRV	LTKD--P--IWIWLG	TFDTAEAAARAYDEAARALRGEN--ARTNFA	
	CaERF110	KYGVVRQR	-KQGWVAEVRV	LTKD--P--IWIWLG	TFDTAEAAARAYDEAARALRGEN--ARTNFA	
Xb	CaERF9	KYRGVQRQ	-KWGRWAAEIRDP	KNNT--RHVWLG	TFDTAEAAAVYDAAAIEIN--ALTNIL	
	CaERF16	KYRGVQRQ	-KWGRWAAEIRDP	KNNT--RHVWLG	TFDTAEAAAVYDAAAIEIN--ALTNIL	
	CaERF20	KYRGVQRQ	-KWGRWAAEIRDP	KNNT--RHVWLG	TFDTAEAAAVYDAAAIEIN--ALTNIL	
	CaERF14	KYRGVQRQ	-KWGRWAAEIRDP	KNNT--RHVWLG	TFDTAEAAAVYDAAAIEIN--ALTNIL	
	CaERF19	KYGVVRQR	-KWGRWAAEIRDP	KNNT--RHVWLG	TFDTAEAAAVYDAAAIEIN--ALTNIL	
	CaERF12	KYGVVRQR	-KWGRWAAEIRDP	KNNT--RHVWLG	TFDTAEAAAVYDAAAIEIN--ALTNIL	
	CaERF10	KYRGVQRQ	-KWGRWAAEIRDP	KNNT--RHVWLG	TFDTAEAAAVYDAAAIEIN--ALTNIL	
	CaERF18	KYRGVQRQ	-KWGRWAAEIRDP	KNNT--RHVWLG	TFDTAEAAAVYDAAAIEIN--ALTNIL	
	CaERF11	KYGVVRQR	-KQGWVAEVRV	LTKD--R--IWIWLG	TFDTAEAAAVYDAAAIEIN--ALTNIL	
	CaERF13	KYGVVRQR	-KQGWVAEVRV	LTKD--R--IWIWLG	TFDTAEAAAVYDAAAIEIN--ALTNIL	
	CaERF21	KYGVVRQR	-KQGWVAEVRV	LTKD--R--IWIWLG	TFDTAEAAAVYDAAAIEIN--ALTNIL	
	CaERF17	KYGVVRQR	-KQGWVAEVRV	LTKD--R--IWIWLG	TFDTAEAAAVYDAAAIEIN--ALTNIL	
XI	CaERF46	RFKGVRRKMP	CG--SYIAEIKD	S--S--QRRYVWLG	TFDTAEAAALAYDAAARAKKYG--QRAKTNFP	
	CaERF42	KYRGVRRK	CG--SYIAEIKD	S--S--QRRYVWLG	TFDTAEAAALAYDAAARAKKYG--QRAKTNFP	
	CaERF73	KYRGVRRK	CG--SYIAEIKD	S--S--QRRYVWLG	TFDTAEAAALAYDAAARAKKYG--QRAKTNFP	
	CaERF44	KYRGVRRK	CG--SYIAEIKD	S--S--QRRYVWLG	TFDTAEAAALAYDAAARAKKYG--QRAKTNFP	
	CaERF79	HYRGVRRK	CG--SYIAEIKD	S--S--QRRYVWLG	TFDTAEAAALAYDAAARAKKYG--QRAKTNFP	
	CaERF74	RYKGVRRK	CG--SYIAEIKD	S--S--QRRYVWLG	TFDTAEAAALAYDAAARAKKYG--QRAKTNFP	
	CaERF45	HYNGVRRK	CG--SYIAEIKD	S--S--QRRYVWLG	TFDTAEAAALAYDAAARAKKYG--QRAKTNFP	
	CaERF124	DSLISAP	AAPSPSMTTTP	PKPE--S--LCRMG	TFDTAEAAALAYDAAARAKKYG--QRAKTNFP	

Fig. S3. Multiple sequence alignment of the DREB and ERF protein subfamilies. The amino acid sequences of these proteins were aligned by Clustal W. The red color indicated characteristic amino acid in the DREB and ERF subfamily, respectively. The blue color indicated the specific WLG motif. The gray color indicated more than 90% of highly conserved residues in the two subfamilies.

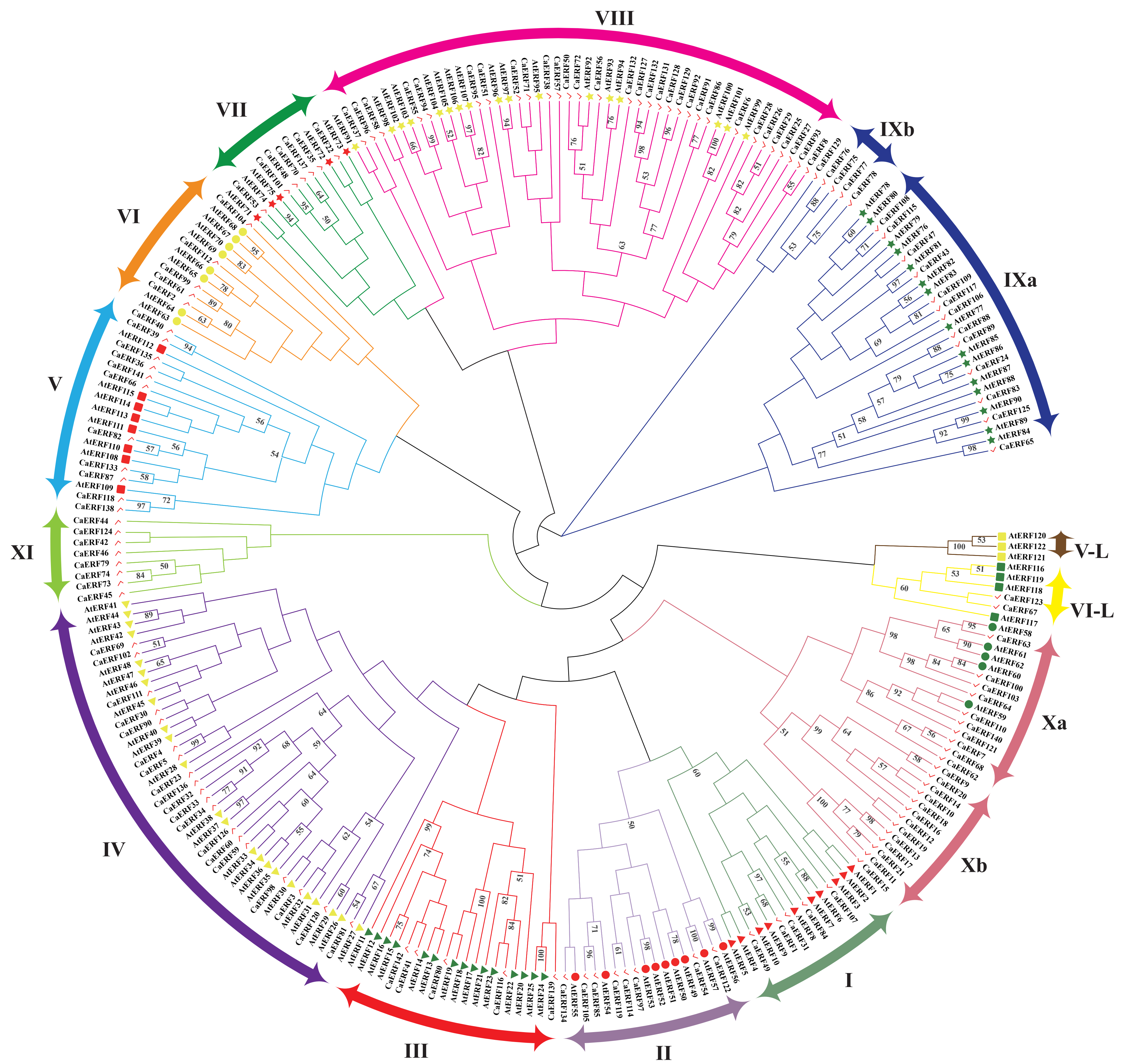


Fig. S4. Phylogenetic tree of the pepper ERF family in relation to Arabidopsis. The different-colored branch indicate different groups of ERF proteins. Red check represented ERF proteins in pepper, other different color shapes indicated different groups in phylogeny of *Arabidopsis* (Nakano et al., 2006).

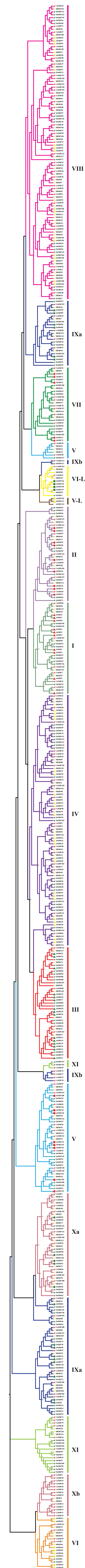


Fig. S5. Phylogenetic tree of the pepper ERF family in relation to tomato (137), rice (138) and *Arabidopsis* (122). The different-colored branch indicate different groups of ERF proteins. Red, yellow and green check represented ERF proteins in pepper, tomato and rice, respectively. Other different color shapes indicated different groups in phylogeny of *Arabidopsis* (Nakano et al., 2006).

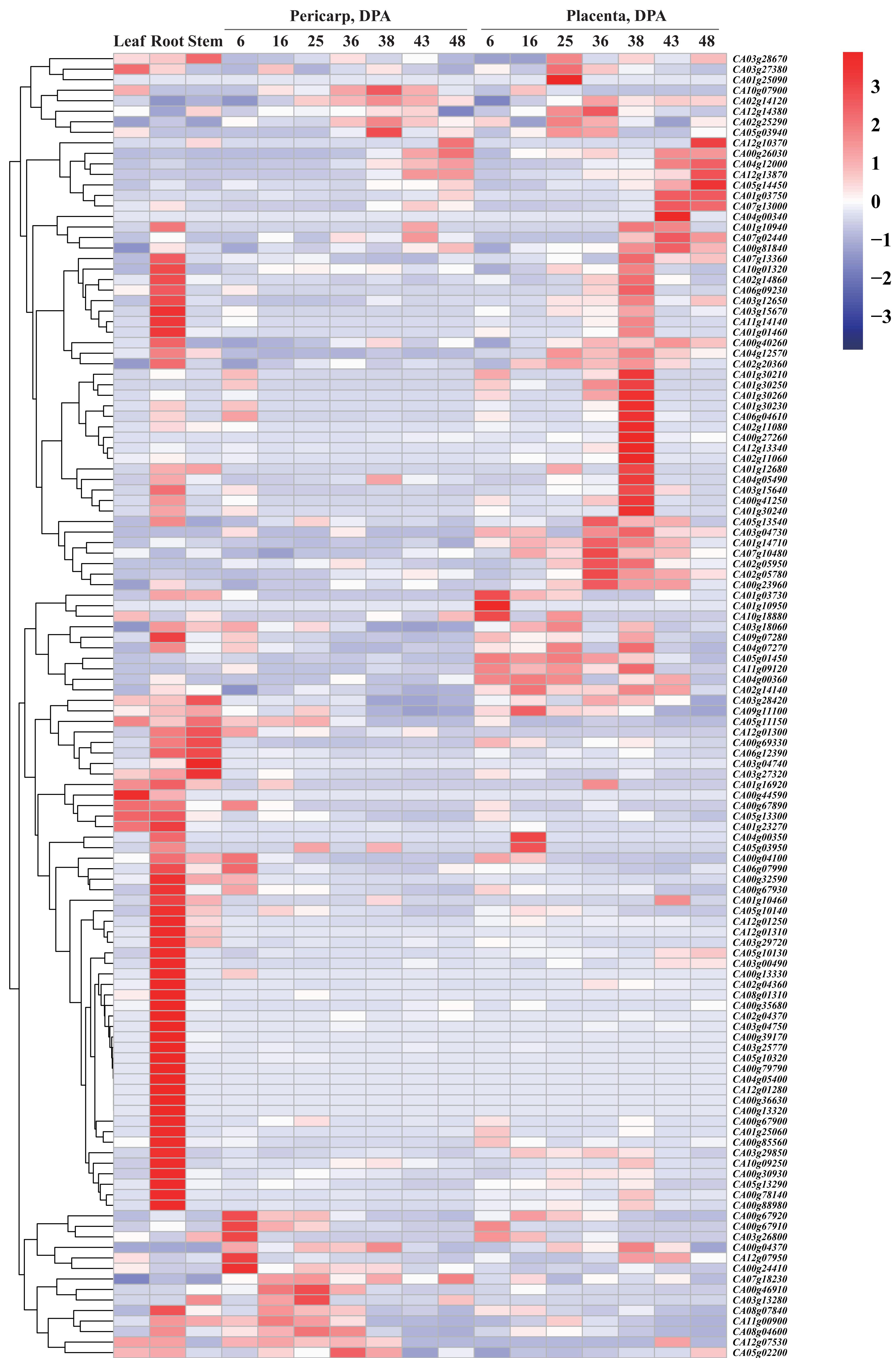


Fig. S6. The expression patterns of *CaERF* genes in different tissues . The heat map was directly constructed by using the RPKM value. The RPKM value was mapped to the *Capsicum annuum* genome of version 1.5 performed by Kim et al (2014).