

GEPHE SUMMARY

zfl2 (https://www.gephebase.org/search-criteria?/and+Gene+Gephebase=~zfl2^#gephebase-summary-title)	Gephebase Gene	GepheID	
		GP00001226	
	Entry Status	Martin	Main curator
Published			

PHENOTYPIC CHANGE

		Trait Category	
Physiology (https://www.gephebase.org/search-criteria?/and+Trait+Category=~Physiology^#gephebase-summary-title)		Trait	
Flowering time (https://www.gephebase.org/search-criteria?/and+Trait=~Flowering+time^#gephebase-summary-title)		Trait State in Taxon A	
Zea mays		Trait State in Taxon B	
Zea mays -Ky21		Ancestral State	
Taxon A		Taxonomic Status	
Domesticated (https://www.gephebase.org/search-criteria?/and+Taxonomic+Status=~Domesticated^#gephebase-summary-title)			
Taxon A		Taxon B	
Zea mays		Zea mays	
(https://www.gephebase.org/search-criteria?/and+Taxon+and+Synonyms=~Zea+mays^#gephebase-summary-title)		(https://www.gephebase.org/search-criteria?/and+Taxon+and+Synonyms=~Zea+mays^#gephebase-summary-title)	
Common Name		Common Name	
-		-	
Synonyms		Synonyms	
Zea mays var. japonica; maize; Zea mays L.; Zea mays mays		Zea mays var. japonica; maize; Zea mays L.; Zea mays mays	
Rank		Rank	
species		species	
Lineage		Lineage	
cellular organisms; Eukaryota; Viridiplantae; Streptophyta; Streptophytina; Embryophyta; Tracheophyta; Euphyllophyta; Spermatophyta; Magnoliophyta; Mesangiospermae; Liliopsida; Petrosaviidae; commelinids; Poales; Poaceae; PACMAD clade; Panicoideae; Andropogonodae; Andropogoneae; Tripsacinae; Zea		cellular organisms; Eukaryota; Viridiplantae; Streptophyta; Streptophytina; Embryophyta; Tracheophyta; Euphyllophyta; Spermatophyta; Magnoliophyta; Mesangiospermae; Liliopsida; Petrosaviidae; commelinids; Poales; Poaceae; PACMAD clade; Panicoideae; Andropogonodae; Andropogoneae; Tripsacinae; Zea	
Parent		Parent	
Zea () - (Rank: genus)		Zea () - (Rank: genus)	
(https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 4575)		(https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 4575)	
NCBI Taxonomy ID		NCBI Taxonomy ID	
4577		4577	
(https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 4577)		(https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 4577)	
is Taxon A an Intraspecies?		is Taxon B an Intraspecies?	
No		Yes	
		Taxon B Description	
		Zea mays -Ky21	

GENOTYPIC CHANGE

		Generic Gene Name	
zfl2		Q5Q1L6 (http://www.uniprot.org/uniprot/Q5Q1L6)	UniProtKB Zea mays
		Synonyms	GenebankID or UniProtKB
-		AY789022 (https://www.ncbi.nlm.nih.gov/nuccore/AY789022)	
		String	
-			
		Sequence Similarities	
-			
		GO - Molecular Function	
GO:0003677 : DNA binding (https://www.ebi.ac.uk/QuickGO/term/GO:0003677)			
		GO - Biological Process	
GO:0006355 : regulation of transcription, DNA-templated (https://www.ebi.ac.uk/QuickGO/term/GO:0006355)			
		GO - Cellular Component	
-			
		Presumptive Null	

No (https://www.gephebase.org/search-criteria?/and+Presumptive Null=~No~#gephebase-summary-title)	Molecular Type
Coding (https://www.gephebase.org/search-criteria?/and+Molecular Type=~Coding~#gephebase-summary-title)	Aberration Type
Deletion (https://www.gephebase.org/search-criteria?/and+Aberration Type=~Deletion~#gephebase-summary-title)	Deletion Size
10-99 bp	Molecular Details of the Mutation
16a.a. deletion	Experimental Evidence
Linkage Mapping (https://www.gephebase.org/search-criteria?/and+Experimental Evidence=~Linkage Mapping~#gephebase-summary-title)	Main Reference
The genetic architecture of maize flowering time. (2009) (https://pubmed.ncbi.nlm.nih.gov/19661422)	Authors
Buckler ES; Holland JB; Bradbury PJ; Acharya CB; Brown PJ; Browne C; Ersoz E; Flint-Garcia S; Garcia A; Glaubitz JC; Goodman MM; Harjes C; Guill K; Kroon DE; Larsson S; Lepak NK; Li H; Mitchell SE; Pressoir G; Peiffer JA; Rosas MO; Rocheford TR; Roday MC; Romero S; Salvo S; Sanchez Villeda H; da Silva HS; Sun Q; Tian F; Upadaya N; Ware D; Yates H; Yu J; Zhang Z; Kresovich S; McMullen MD	Abstract
Flowering time is a complex trait that controls adaptation of plants to their local environment in the outcrossing species <i>Zea mays</i> (maize). We dissected variation for flowering time with a set of 5000 recombinant inbred lines (maize Nested Association Mapping population, NAM). Nearly a million plants were assayed in eight environments but showed no evidence for any single large-effect quantitative trait loci (QTLs). Instead, we identified evidence for numerous small-effect QTLs shared among families; however, allelic effects differ across founder lines. We identified no individual QTLs at which allelic effects are determined by geographic origin or large effects for epistasis or environmental interactions. Thus, a simple additive model accurately predicts flowering time for maize, in contrast to the genetic architecture observed in the selfing plant species rice and <i>Arabidopsis</i> .	Additional References

RELATED GEPHE

2 (Rap2.7 (vgt1), ZmCCT) (https://www.gephebase.org/search-criteria?/or+Taxon ID=~4577~/and+Trait=Flowering time/and+groupHaplotypes=true#gephebase-summary-title)	Related Genes
No matches found.	Related Haplotypes

EXTERNAL LINKS

COMMENTS