

GEPHE SUMMARY

Style2.1 (https://www.gephebase.org/search-criteria/?and+Gene Gephebase=^Style2.1^#gephebase-summary-title)	Gephebase Gene	GP00001081	GephelD
Published	Entry Status	Martin	Main curator

PHENOTYPIC CHANGE

Trait #1	Trait Category
Morphology (https://www.gephebase.org/search-criteria/?and+Trait Category=^Morphology^#gephebase-summary-title)	Trait
Flower morphology (style length) (https://www.gephebase.org/search-criteria/?and+Trait=^Flower+morphology+(style+length)^#gephebase-summary-title)	Trait State in Taxon A
Solanum pennellii wild	Trait State in Taxon B
Solanum lycopersicum domesticated	

Trait #2	Trait Category
Physiology (https://www.gephebase.org/search-criteria/?and+Trait Category=^Physiology^#gephebase-summary-title)	Trait
Autogamy (https://www.gephebase.org/search-criteria/?and+Trait=^Autogamy^#gephebase-summary-title)	Trait State in Taxon A
-	Trait State in Taxon B
-	

Taxon A	Ancestral State
Domesticated (https://www.gephebase.org/search-criteria/?and+Taxonomic Status=^Domesticated^#gephebase-summary-title)	Taxonomic Status

Taxon A	Latin Name	Taxon B	Latin Name
Solanum pennellii (https://www.gephebase.org/search-criteria/?and+Taxon+and+Synonyms=^Solanum+pennellii^#gephebase-summary-title)	Common Name	Solanum lycopersicum (https://www.gephebase.org/search-criteria/?and+Taxon+and+Synonyms=^Solanum+lycopersicum^#gephebase-summary-title)	Common Name
-	Synonyms	tomato	Synonyms
Lycopersicon pennellii; Lycopersicon pennelli; Lycopersion pennellii; Solanum pennellii; Lycopersicon pennellii (Correll) D'Arcy; Solanum pennellii Correll	Rank	Lycopersicon esculentum var. esculentum; Solanum esculentum; Solanum lycopersicum var. humboldtii; tomato; Lycopersicon esculentum Mill.; Solanum esculentum Dunal; Solanum lycopersicum L.; Lycopersicon lycopersicum; Lycopersicum esculentum; Solanum lycopersicon	Rank
species	Lineage	species	Lineage
cellular organisms; Eukaryota; Viridiplantae; Streptophyta; Streptophytina; Embryophyta; Tracheophyta; Euphyllphyta; Spermatophyta; Magnoliophyta; Mesangiospermae; eudicotyledons; Gunneridae; Pentapetalae; asterids; lamiids; Solanales; Solanaceae; Solanoideae; Solaneae; Solanum; Lycopersicon	NCBI Taxonomy ID	cellular organisms; Eukaryota; Viridiplantae; Streptophyta; Streptophytina; Embryophyta; Tracheophyta; Euphyllphyta; Spermatophyta; Magnoliophyta; Mesangiospermae; eudicotyledons; Gunneridae; Pentapetalae; asterids; lamiids; Solanales; Solanaceae; Solanoideae; Solaneae; Solanum; Lycopersicon	NCBI Taxonomy ID
Lycopersicon () - (Rank: subgenus) (https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 49274)	Parent	Lycopersicon () - (Rank: subgenus) (https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 49274)	Parent
28526 (https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 28526)	is Taxon A an Infraspecies?	4081 (https://www.ncbi.nlm.nih.gov/Taxonomy/Browser/wwwtax.cgi?id= 4081)	is Taxon B an Infraspecies?
No	Yes	Solanum lycopersicum domesticated	Taxon B Description

GENOTYPIC CHANGE

100301942	Generic Gene Name	B6CG44 (http://www.uniprot.org/uniprot/B6CG44)	UniProtKB Solanum lycopersicum
-	Synonyms	EU161281 (https://www.ncbi.nlm.nih.gov/nuccore/EU161281)	GenebankID or UniProtKB
-	String		
-	Sequence Similarities		
-	GO - Molecular Function		
GO:0046983 : protein dimerization activity (https://www.ebi.ac.uk/QuickGO/term/GO:0046983)	GO - Biological Process		
GO:0006355 : regulation of transcription, DNA-templated (https://www.ebi.ac.uk/QuickGO/term/GO:0006355)	GO - Cellular Component		
-			Presumptive Null
Unknown (https://www.gephebase.org/search-criteria?/and+Presumptive+Null=^Unknown^#gephebase-summary-title)			Molecular Type
Cis-regulatory (https://www.gephebase.org/search-criteria?/and+Molecular+Type=^Cis-regulatory^#gephebase-summary-title)			Aberration Type
Unknown (https://www.gephebase.org/search-criteria?/and+Aberration+Type=^Unknown^#gephebase-summary-title)			Molecular Details of the Mutation
Not identified			Experimental Evidence
Linkage Mapping (https://www.gephebase.org/search-criteria?/and+Experimental+Evidence=^Linkage+Mapping^#gephebase-summary-title)			Main Reference
Changes in regulation of a transcription factor lead to autogamy in cultivated tomatoes. (2007) (https://pubmed.ncbi.nlm.nih.gov/17962563)			Authors
Chen KY; Cong B; Wing R; Vrebalov J; Tanksley SD			Abstract
We report the cloning of Style2.1, the major quantitative trait locus responsible for a key floral attribute (style length) associated with the evolution of self-pollination in cultivated tomatoes. The gene encodes a putative transcription factor that regulates cell elongation in developing styles. The transition from cross-pollination to self-pollination was accompanied, not by a change in the STYLE2.1 protein, but rather by a mutation in the Style2.1 promoter that results in a down-regulation of Style2.1 expression during flower development.			Additional References

RELATED GEPHE

No matches found.	Related Genes
No matches found.	Related Haplotypes

EXTERNAL LINKS

COMMENTS