

Plant comparative genomics

Making agricultural data FAIR

Tool

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https://www.gramene.org

Rel #66 (Dec. 2022) Plant genomes: 128 Gene family trees: 152K WG Pairwise DNA alignments: 278 Synteny maps: 79 gene structures Species with genetic variation: 18 Species with baseline gene expression: 28 Curated rice pathways: 320

Species with orthology-based pathway projections: 120 Support for community curation of

Browse

Pathways

PanGenom

For each pan genome site, gene trees were built with a minimum of 7 outgroup species. Expression data and pathways are available for the reference genomes.



maize-pangenome.gramene.org Rel #3 (March 2023) Maize genomes: 41



vitis.gramene.org

Rel #3 (May 2022) Grape genomes: 16

Gene trees: 28K

SORGHUM BASE . Sorg Rel #5 (Dec. 2022) Sorghum genomes: 28 Gene trees: 44K 61M SNPs and EMS mu

61M SNPs and EMS mutations Publications DB & research highlights

Rel #6 (Jan. 2023)

Rice genomes: 28

Gene trees: 38K

oryza.gramene.org

sorghumbase.org

Curated gene functions from the literature (354 Z. mays, 4006 O. sativa, 7184 A. thaliana) enable searches with TO/PO terms, and returns associated PMIDs in a new Publications tab

X9 Zm00001eb005920 Zea mays MZM20017616, Zm00001d027893, lipoxygenase9						Model Species Homolog LOX4 Arabidopsis thaliana PLAT/LH2 domain-containing lipoxygenase family protein			
Location	Expression	Homology	Pathways	Papers	Xrefs				
	publicatio								
This gene ha	is been descri	bed in the lite	rature:						
PubMed link	Curation source	Title/Desc	ription						
			The oxidation of 20:2 and 22:2 by 9-LOX afforded low yields of racemic 11-, 12-, 14-, and 15-hydroperoxides.						
<u>19817685</u>	geneRIF	The oxidat	ion of 20:2 and	22:2 by 9-LO)	Cafforded low yield	s of racemic 11-, 12-, 14-, and 15-hydroperoxides.			

Contact us for data integration, training and support or to partake in our community curation projects:

https://www.gramene.org/feedback





EMBL-EBI





Cite Gramene:



Tello-Ruiz et al (2021) 10.1093/nar/gkaa979

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Comparative pathway analysis of JA signaling in rice vs 4 species in Gramene's Plant Reactome

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Expression

BLAST

CLIMtools

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