

CITRUS GENOME DATABASE



Resources for citrus genomics, genetics, breeding and disease research

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What's new in CGD?

New Training Videos

- [Marker search by trait and viewing genome position](#) (2:41 mins)
- [Cross-searching with gene or mRNA names](#) (1:41 mins)

New Data and Functionality

- Six new citrus genomes added
- New search option to cross-search using corresponding mRNA or gene names added to Gene and Transcript Search

New data added in third quarter of 2024

The number of genomes on CGD continues to grow. In this last quarter we added six new genome assemblies. These genomes are available to view in JBrowse and the Synteny Viewer, search using BLAST, and the gene and mRNA annotations and information are searchable in the CGD interfaces. Check out these new genomes on CGD!

New Sweet Orange Genome

- [Citrus sinensis cv. Neixiu genome v1.0](#) - Yang et al. A high-quality chromosome-scale genome assembly of blood orange, an important pigmented sweet orange variety. *Scientific Data*. 2024 May 06; 11(1):460

New Lime Genomes

- [Citrus australasica cv. Rainbow genome v1.0](#) - Nakandala et al. The genome of *Citrus australasica* reveals disease resistance and other species specific genes. *BMC Plant Biology*. 2024 Apr 10; 24(1):260.
- [Citrus garrawayi genome v1.0 \(UQ\)](#) - Nakandala et al. The genomes of Australian wild limes. *Plant Molecular Biology*. 2024 Sep 24; 114(5):102.
- [Citrus glauca genome v1.0 \(UQ\)](#) - Nakandala et al. The genomes of Australian wild limes. *Plant Molecular Biology*. 2024 Sep 24; 114(5):102.
- [Citrus inodora genome v1.0 \(UQ\)](#) - Nakandala et al. The genomes of Australian wild limes. *Plant Molecular Biology*. 2024 Sep 24; 114(5):102.

Other New Citrus Genome

- [Citrus changshanensis cv. Huyou genome v1.0](#) - Miao et al. Haplotype-resolved chromosome-level genome assembly of Huyou (*Citrus changshanensis*). *Scientific Data*. 2024 Jun 7;11(1):605.

New option in Gene and Transcript Search

Do you have gene names for a genome, but need the mRNA names? Or do you have mRNA names and need the gene names? We have a solution for you!

In the [Gene and Transcript Search](#), you can now cross-search using the gene or mRNA and retrieve data on the other. Let's say you have a list of differentially expressed genes and want to retrieve the functional annotations (which are associated with the mRNA in CGD), you can now search with the list of gene names and no longer need to convert the gene names to mRNA names.

Data Type Gene/Transcript

4,347,001 Gene/Transcript. *Note: actual rows in downloaded file depend on the selected fields.*

Query

Sequence Type Any

Genome

Genome Name Any
Aegle marmelos cv. AEG genome v1.0
Atalantia buxifolia cv. HKC v2.0 genome
Atalantia buxifolia genome v1.0

Chromosome/Scaffold Any

Start >

Stop <

Transcriptome/Other Dataset

Gene/Transcript name

Name contains

File Upload No file chosen

Provide names in a file. Separate each name by a new line.

Also search associated mRNA/gene if the name in uploaded file matches a gene/mRNA

Functional Annotation

Downloadable Fields

- All Fields
- Name
- Unique Name
- Organism
- Type
- Genome/Transcriptome
- Chromosome/Scaffold
- Start position
- Stop position
- Location
- BLAST
- InterPro
- GO Term
- GO Accession
- GenBank Keyword

Simply type the gene or mRNA in the box under the Gene/Transcript name section or upload a file of names and check the box. Then select the data you want to view or download in the right-hand box. You can also download a FASTA file of the sequences using the 'Sequence retrieval' option. You can watch our [video tutorial](#) on YouTube for more details.

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