

What is PCD?

PCD centralized database containing is а genomics, genetics, and breeding data and analysis tools for pulse crops. Annotated genome sequences are available to view and search and there is also information about genetic maps, molecular markers, and QTL. If you are a breeder who needs to manage private breeding program data, access to the Breeding Information Management System (BIMS) can be requested. Visit us at www.pulsedb.org to see everything that is available. Each issue of the newsletter will focus on a different type of data and what features are available. Short monthly how-to videos are available from the site.

New Ortholog/Paralog Search

While ortholog and paralog data are stored in our database as part of the <u>MCScanX</u> synteny analysis are viewable in the <u>Synteny Viewer</u> tool, there was not a way to search that data directly. To remedy this, we have designed the new <u>Ortholog/Paralog Search</u> feature. See the diagram below for details on how to use it.

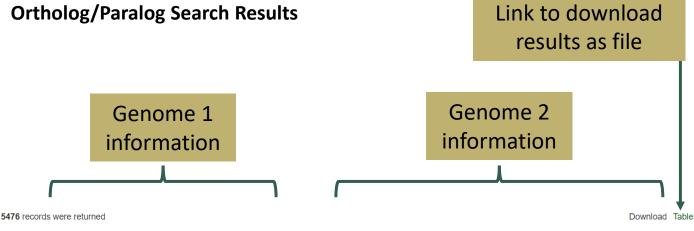
Remember that clicking on mRNA names opens the details page for that mRNA where you can see all the functional annotation details. Can't find your genome on the list in the new search? Only genomes that are within the Synteny Viewer are currently available. The missing genomes will be added soon. Please <u>contact us</u> with feedback.

Ortholog/Paralog Search

between different assemblie	/paralogs that are detected using MCScanX (Wang et al. 2012) using defaults assemblies/annotations of the same species represents potentially the same g is and genes were used only when mRNAs are not available. The result table genome and refine					
Genome	Phaseolus vulgaris G19833 genome v2.1	with a chromosome				
Chromosome/Scaffold	Chr01 ~	or gene/mRNA name				
Gene/Transcript Name	contains ~ Choose	File No file chosen				
Compare to	Phaseolus vulgaris G19833 genome v2.1 Pisum sativum Cameor genome v1a Vigna angularis Jingnong 6 genome v1.1 Vigna unguiculata L. Walp IT97K-499-35 genome v1.1	Refine more by selecting the second				
Chromosome/Scaffold	Any 🗸	genome and				
Search Reset		chromosome				

See the Page 2 for the results!





#	Genome1	Chromosome/So	affold1 Ortholog/Paralog1	Genome2	Chromosome/Scaff	old2 Ortholog/Paralog2	Associated Gene	
1	Phaseolus vulgaris G19833 genome v2.1	Chr01	Phvul.001G000500.1	Vigna unguiculata L. Walp IT97K-499-35 genome v1.1	Vu08	Vigun08g000800.1	Vigun08g000800	
2	Phaseolus vulgaris G19833 genome v2.1	Chr01	Phvul.001G000800.1	Vigna unguiculata L. Walp IT97K-499-35 genome v1.1	Vu08	Vigun08g001200.1	Vigun08g001200	
3	Phaseolus vulgaris G19833 genome v2.1	Chr01	Phvul.001G000800.1	Vigna unguiculata L. Walp IT97K-499-35 genome v1.1	Vu09	Vigun09g260900.1	Vigun09g260900	
4	Phaseolus vulgaris G19833 genome v2.1	Chr01	Phvul.001G000900.1	Vigna unguiculata L. Walp IT97K-499-35 genome v1.1	Vu08	Vigun08g001300.1	Vigun08g001300	
5	Phaseolus vulgaris G19833 genome v2.1	Chr01	Phvul.001G000900.1	Vigna unguiculata L. Walp IT97K-499-35 genome v1.1	Vu09	Vigun09g260500.1	Vigun09g260500	
6	Phaseolus vulgaris G19833 genome v2.1	Chr01	Phvul.001G001000.1	Vigna unguiculata L. Walp IT97K-499-35 genome v1.1	Vu08	Vigun08g001400.1	Vigun08g001400	
7	Phaseolus vulgaris G19833 genome v2.1	Chr01	Phvul.001G001000.1	Vigna unguiculata L. Walp IT97K-499-35 genome v1.1	Vu09	Vigun09g260100.1	Vigun09g260100	
8	Phaseolus vulgaris G19833 genome v2.1	Chr01	Phvul.001G001100.1	Vigna unguiculata L. Walp IT97K-499-35 genome v1.1	Vu08	Vigun08g001500.2	Vigun08g001500	
	Hyperlink to mRNA details					Hyperlinks to mRNA and gene details		
						C		
		Нур	erlinks to gei information					

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