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Find proteins of unknown function (PUF) using Plantannot - Protocol C

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[1]Embrapa

In Development dx.doi.org/10.17504/protocols.io.bf88jrzw

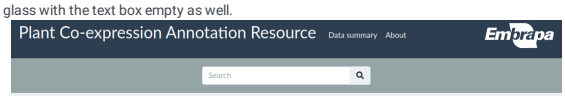
Mauricio Mudadu

Entering application 1s

1s

1 Enter the Plantannot Result's page, with empty filters and text box search:
https://www.machado.cnptia.embrapa.br/plantannot/find/?q=

Or you can enter the https://www.machado.cnptia.embrapa.br/plantannot initial page and click on the magnifying glass with the text box empty as well.



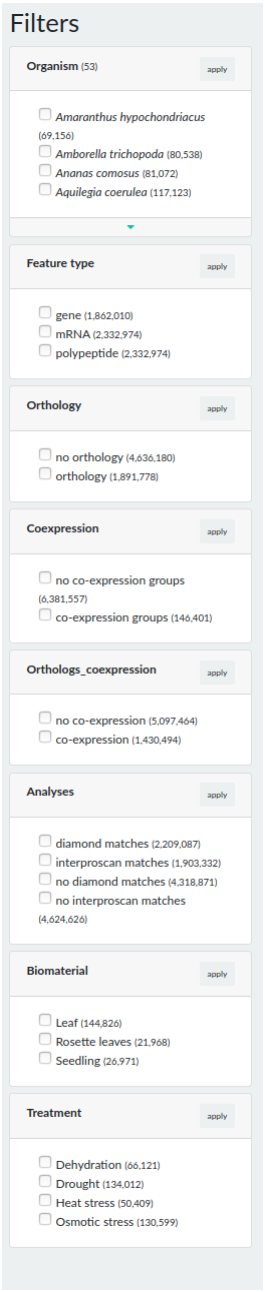
https://www.machado.cnptia.embrapa.br/plantannot

Filtering 1s

1s

2 Visualize the "Filters" card on the left of the page from step1:

Citation: Marcos Viana, Adhemar Zerlotini, Mauricio Mudadu (05/13/2020). Find proteins of unknown function (PUF) using Plantannot - Protocol C . https://dx.doi.org/10.17504/protocols.io.bf88jrzw



https://www.machado.cnptia.embrapa.br/plantannot/find/?q=

2.1 In the "Organisms" filter, select any organisms (expand the organism's list using the green arrow) or [1s] select all by leaving all boxes empty. We will use *Oropetium tomaeum* as example. Click "apply" to execute the filter:

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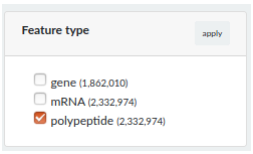
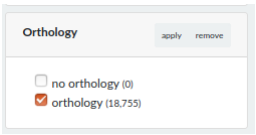
https://www.machado.cnptia.embrapa.br/plantannot/find/?q=&selected_facets=organism%3AOropetium+thomaeum

2.2 In the "Feature type" filter, select "polypeptide", and click "apply" to execute the filter: 1s



https://www.machado.cnptia.embrapa.br/plantannot/find/?q=&selected_facets=organism%3AOropetium+thomaeum&selected_facets=so_term%3Apolypeptide

2.3 In the Orthology filter, select "orthology", and click "apply" to execute the filter: 1s



https://www.machado.cnptia.embrapa.br/plantannot/find/?q=&selected_facets=organism%3AOropetium+thomaeum&selected_facets=so_term%3Apolypeptide&selected_facets=orthology%3A1

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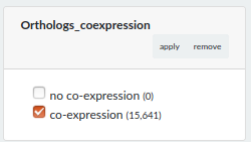
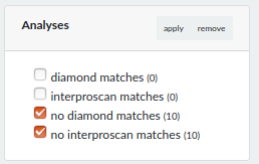
2.4 In the "Orthologs_coexpression" filter, select "co-expression", and click "apply" to execute the filter: 1s



https://www.machado.cnptia.embrapa.br/plantannot/find/?q=&selected_facets=organism%3AOropetium+thomaeum&selected_facets=so_term%3Apolypeptide&selected_facets=orthology%3A1&selected_facets=orthologs_coexpression%3Atrue

2.5 In the "Analyses" filter, select both "no diamond matches" and "no interproscan matches", and click "apply" to execute the filter: 1s

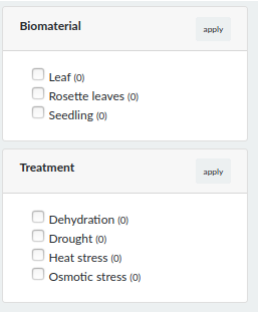


https://www.machado.cnptia.embrapa.br/plantannot/find/?q=&selected_facets=organism%3AOropetium+thomaeum&selected_facets=so_term%3Apolypeptide&selected_facets=orthology%3A1&selected_facets=orthologs_coexpression%3Atrue&selected_facets=analyses%3Ano+diamond+matc

2.6 Leave the "Coexpression" filter empty: 1s

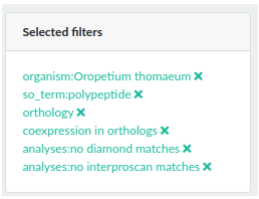
https://www.machado.cnptia.embrapa.br/plantannot/find/?q=&selected_facets=organism%3AOropetium+thomaeum&selected_facets=so_term%3Apolypeptide&selected_facets=orthology%3A1

2.7 Leave the "Biomaterial" and "Treatment" filters empty: 1s



https://www.machado.cnptia.embrapa.br/plantannot/find/?q=&selected_facets=organism%3AOropetium+thomaeum&selected_facets=so_term%3Apolypeptide&selected_facets=orthology%3A1&selected_facets=orthologs_coexpression%3Atrue&selected_facets=analyses%3Ano+diamond+matc

3 After execution of all filters we will have the following list of filters: 1s



https://www.machado.cnptia.embrapa.br/plantannot/find/?q=&selected_facets=organism%3AOropetium+thomaeum&selected_facets=so_term%3Apolypeptide&selected_facets=orthology%3A1&selected_facets=orthologs_coexpression%3Atrue&selected_facets=analyses%3Ano+diamond+matches&selected_face

Viewing results 1s

4 Visualize the "Results" card on the center-right of the screen, we will have the resulting list of *Oropetium*'s PUFs supposedly related to abiotic stress by using orthology and co-expression networks: 1s

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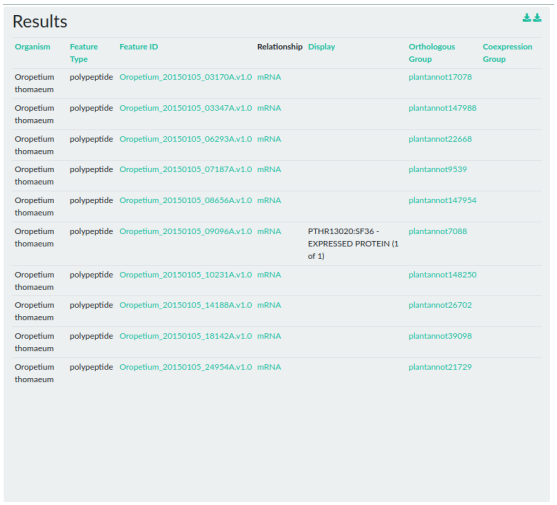

Results

Organism	Feature Type	Feature ID	Relationship	Display	Orthologous Group	Coexpression Group
Oropetium thomaeum	polypeptide	Oropetium_20150105_03170A.v1.0	mRNA		plantannot17078	
Oropetium thomaeum	polypeptide	Oropetium_20150105_03347A.v1.0	mRNA		plantannot147988	
Oropetium thomaeum	polypeptide	Oropetium_20150105_06293A.v1.0	mRNA		plantannot22668	
Oropetium thomaeum	polypeptide	Oropetium_20150105_07187A.v1.0	mRNA		plantannot9539	
Oropetium thomaeum	polypeptide	Oropetium_20150105_08656A.v1.0	mRNA		plantannot147954	
Oropetium thomaeum	polypeptide	Oropetium_20150105_09096A.v1.0	mRNA	PTHR13020:SF36 - EXPRESSED PROTEIN (1 of 1)	plantannot7088	
Oropetium thomaeum	polypeptide	Oropetium_20150105_10231A.v1.0	mRNA		plantannot148250	
Oropetium thomaeum	polypeptide	Oropetium_20150105_14188A.v1.0	mRNA		plantannot26702	
Oropetium thomaeum	polypeptide	Oropetium_20150105_18142A.v1.0	mRNA		plantannot39098	
Oropetium thomaeum	polypeptide	Oropetium_20150105_24954A.v1.0	mRNA		plantannot21729	

https://www.machado.cnptia.embrapa.br/plantannot/find/?q=&selected_facets=organism%3AOropetium+thomaeum&selected_facets=so_term%3Apolypeptide&selected_facets=orthology%3A1&selected_facets=orthologs_coexpression%3Atrue&selected_facets=analyses%3Ano+diamond+matches&selected_face

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