



Change Current Database

Current Database: *Arabidopsis thaliana col*

Search in Current Database:



Compound Name Resolutions

Compound Pathway Coverage

Optimum Value of the Minimized Objective Function: 106

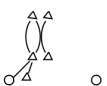
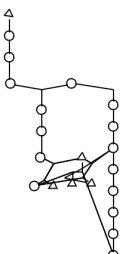
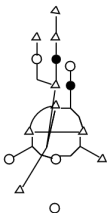
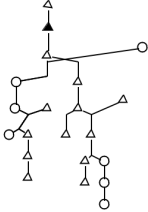
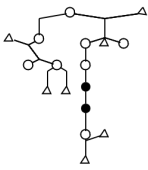
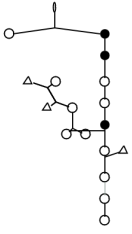


43 compound match results form the input to the covering algorithm.
43 of the recognized compounds are substrates in 496 PGDB reactions.
42 of the recognized compounds are substrates in 287 PGDB pathways;
a pathway covering set of 18 pathways covers those 42 compounds:

Colored nodes are compounds in the covered set;
Colored edges are reactions with side compounds in the covered set;
BLUE - no indicated change in quantity; GREEN - an increase in quantity;
RED - a decrease in quantity.

You utilized the cost function **Pathway Harmony**:

This function favors pathways where either the 'input' substrates are metabolites that show an increase in abundance, and the 'output' substrates are metabolites that show a decrease, or vice versa.

Pathway	Objective Function Value	Pathway Glyph	Covered Compounds
chlorogenic acid biosynthesis II	10		shikimate
glycerol degradation I	10		glycerol
glyoxylate cycle	6		(S)-malate citrate cis-aconitate succinate
L-alanine degradation II (to D-lactate)	4		L-glutamate 2-oxoglutarate (R)-lactate pyruvate L-alanine
L-ascorbate biosynthesis VII (plants, D-galacturonate pathway)	10		L-galactonate
phosphatidylethanolamine biosynthesis III	5		L-serine ethanolamine
photorespiration	4		L-serine glycine D-glycerate 2-oxoglutarate L-glutamate
putrescine degradation IV	5		4-aminobutanoate putrescine
sorbitol biosynthesis II	6		D-gluconate keto-D-fructose
superpathway of anaerobic sucrose degradation	4		β-D-fructofuranose sucrose (S)-lactate pyruvate

superpathway of aspartate and asparagine biosynthesis	4		L-asparagine L-aspartate L-glutamine L-glutamate 2-oxoglutarate
superpathway of branched chain amino acid biosynthesis	5		L-threonine pyruvate 2-oxoglutarate L-isoleucine L-glutamate L-valine L-leucine
superpathway of L-citrulline metabolism	4		fumarate L-aspartate L-proline L-glutamate 2-oxoglutarate L-glutamine
superpathway of L-lysine, L-threonine and L-methionine biosynthesis II	4		L-lysine 2-oxoglutarate L-glutamate pyruvate L-aspartate L-cysteine L-threonine
superpathway of phenylalanine, tyrosine and tryptophan biosynthesis	6		L-phenylalanine L-tyrosine 2-oxoglutarate L-glutamate L-serine L-tryptophan L-glutamine pyruvate
superpathway of tetrahydrofolate biosynthesis	4		pyruvate L-glutamine L-glutamate formate
trehalose degradation II (cytosolic)	5		α,α-trehalose β-D-glucopyranose α-D-glucopyranose
urate conversion to allantoin I	10		urate

[Report Errors or Provide Feedback](#)Page generated by [Pathway Tools](#) version 27.0 (software by SRI International) on Mon Jul 17, 2023, BIOCYC17.

Arabidopsis thaliana col version 17.1.

General Information[Intro to BioCyc](#)
[Subscriptions](#)**Data and Services**[Software/Data Downloads](#)
[Web Services & APIs](#)**Credits**[How to Cite](#)
[Advisory Board](#)**Follow Us**[Pathway Tools Blog](#)
[Mailing List](#)

[20,039 Databases](#)
[Testimonials](#)
[Publications](#)
[Update History](#)
[Troubleshooting](#)
[Contact Us](#)
[About Us](#)

[Linking to BioCyc](#)
[Metabolic and Genome Posters](#)
[Request New BioCyc Genome](#)
[BioCyc Tutorials](#)
[Registry](#)
[Guided Tour](#)

[Contributors](#)
[BioCyc Credits](#) [BioCyc Funding Sources](#)



©2022 SRI International, 333 Ravenswood Avenue, Menlo Park, CA 94025-3493 SRI International is an independent, nonprofit corporation.
[Privacy policy](#) [Disclaimer](#)

SRI International®